

**McILNAY**

# McILNAY & ASSOCIATES, INC.

2305 OXFORD LANE • CASPER, WY 82604 • (307) 265-4351 • FAX (307) 473-1218

**PETROLEUM CONSULTING ENGINEERS & PROPERTY MANAGEMENT**

**REGISTERED PROFESSIONAL ENGINEERS**

February 13, 1996

FEB 15 1996

Mr. Frank Matthews  
Utah Board of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Re: Petral Exploration, LLC, #1 Knockdhu Unit, Knockdhu Unit No. UTU 75040X  
SE NE NW Section 33-T37S-R25E, San Juan Co., UT

Dear Mr. Matthews:

The attached package includes the following for your review and approval.

1. Application for Directional Drilling.
2. Request for Confidentiality.
3. Copy of Federal APD and NTL-6 package in lieu of Utah APD.

The BLM has requested that we start operations by early March to avoid the raptor nesting season. Your prompt attention to this matter will be appreciated. Please let us know if you are in need of any additional information.

Sincerely,

McILNAY & ASSOCIATES, INC.

  
Kenneth P. Kidneigh  
Petroleum Engineer

so

cc: Petral Exploration LLC  
Rose Exploration Associates

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PETROLEUM CONSULTING ENGINEERS & PROPERTY MANAGEMENT

REGISTERED PROFESSIONAL ENGINEERS

February 13, 1996

FEB 15 1996

Mr. Frank Matthews  
Utah Board of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Re: Petral Exploration, LLC, #1 Knockdhu Unit.  
SW NW NE Section 33-T37S-R25E, San Juan Co., UT

Dear Mr. Matthews:

By this letter we are requesting all drilling, completion and production information on the #1 Knockdhu Unit be held **CONFIDENTIAL** for the period allowed by the State of Utah.

Sincerely,

McILNAY & ASSOCIATES, INC.



Stanley H. McInroy, P.E.

so

cc: Petral Exploration LLC  
Rose Exploration Associates

**McILNAY**

# McILNAY & ASSOCIATES, INC.

2305 OXFORD LANE • CASPER, WY 82604 • (307) 265-4351 • FAX (307) 473-1218

PETROLEUM CONSULTING ENGINEERS & PROPERTY MANAGEMENT

REGISTERED PROFESSIONAL ENGINEERS

February 13, 1996

FEB 15 1996

Mr. Frank Matthews  
Utah Board of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Re: Application for Directional Drilling, Petral Exploration, LLC, #1 Knockdhu Unit  
Surface Location: 1104' FNL & 2473' FEL (SW NW NE)  
Bottom Hole Location: 1114' FNL & 2574' FWL (SE NE NW)  
Sec. 33-T37S-R25E San Juan County, Utah

Attn: Mr. Frank Matthews:

On behalf of Petral Exploration, LLC, we hereby apply for approval to directionally drill the subject well. Petral has obtained the written consent of the only owner of oil and gas within 460' of the intended wellbore, Celsius Energy Company. The well will be in Federal Unit No. UTU- 75040X (see attached plat).

In compliance with paragraph R649-3-11 of the Oil & Gas Conservation General Rules, attached are the following documents:

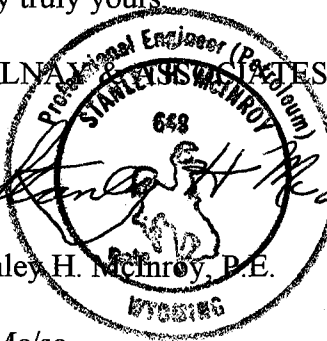
- 1) Written consent of Celsius Energy Company, and the
- 2) Directional Drilling Request, and the
- 3) location plat, and the
- 4) proposed directional drilling program.

It is requested that all information regarding this well be held CONFIDENTIAL.

Please contact us if there are any problems or if you need and additional information. The BLM has requested that we start drilling operations as close to March 1, 1996 as possible in order to avoid a wildlife concern with the raptor nesting area. Please notify Mr. Gary Torres, Bureau of Land Management, 82 East Dogwood, Suite M, Moab, UT 84532 (801) 259-2117 with your approval.

Very truly yours,

McILNAY Engineering (Petroleum) SERVICES, INC.



*Stanley H. McInroy*

Stanley H. McInroy, P.E.

SHMc/so

Enclosures

cc: Petral Exploration, LLC  
Rose Exploration Associates





## CELSIUS ENERGY COMPANY

1331 Seventeenth Street #800 / Denver, Colorado 80202 / Phone (303) 296-8945 / Fax (303) 294-9632

February 7, 1996

PETRAL EXPLORATION LLC  
P.O. Box 5083  
Denver, Colorado 80202

FEB 15 1996

Attention: Ms. Diane Shroyer

Re: Proposed Unitization and Permitting  
No. 1 Knockdhu  
Section 33, T37S-R25E  
San Juan County, Utah

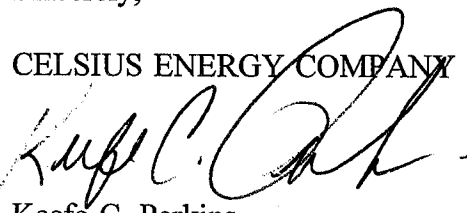
Gentlemen:

Petral Exploration LLC has proposed the drilling of the No. 1 Knockdhu well at a surface location 1090' FNL and 2470' FEL, Section 33, T37S-R25E, San Juan County, Utah. Said well will be deviated and drilled from the surface location in the eastern half of Section 33 to a location in the W $\frac{1}{2}$  that penetrates the Ismay and Desert Creek formations. Please be advised that Celsius hereby consents to join in the unitization of the lands in Section 33 (as to those lands outside the existing Participating Area) and support Petral in obtaining a permit at the proposed location.

Please contact the undersigned with any questions regarding this matter.

Sincerely,

CELSIUS ENERGY COMPANY

  
Keefe C. Perkins  
Senior Landman

KCP/cl

## **DIRECTIONAL DRILLING REQUEST**

The Oil and Gas Conservation Act, 40-6-1 Et. Seq. Utah Code Annotated (As amended 1993), Paragraph R649-3-11, Directional Drilling, states that an application for directional drilling may be approved by the division without notice and hearing when the applicant is the owner of all the oil and gas within a radius of 460 feet from all points along the intended well bore, or the applicant has obtained the written consent of the owner to the proposed directional drilling program.

The following information is provided in support of the requested exception:

**2.1 Operator:** Petral Exploration, Limited Liability Company

c/o McIlnay and Associates

2305 Oxford Lane

Casper, Wyoming 83604

**2.2 Lease name, well number, field name, reservoir name, county of location:**

Lease name: Knockdhu Unit

Well Number: 1

Field Name: Wildcat

Reservoir Name: exploratory target is Upper Ismay

County: San Juan

**2.3 Location Plat:** Attached, shows the distance from the surface location to section and unit lines, the target location within the intended producing interval, and any point along the intended well bore outside the 460 foot radius for which the consent of the owner has been obtained. NOTE: When unitized, the lease line along the north-south center line of the section becomes moot.

Other owners within a 460 foot radius along the track of the proposed deviated well bore are:

Celsuis Energy Company

1331 Seventeenth Street #800

Denver, CO 80202

Phone 303/296-8945

Fax 303/294-9632

A letter from Celsius stating their non-objection to the directional drilling request is attached.

**2.4 Reason for intentional deviation:** Extreme terrain prohibits the drilling of a vertical hole at the desired subsurface location. Please see the attached topographic map. Seismic indicates that the proposed bottom hole location is the optimum location to penetrate the narrow, sinuous Upper Ismay mound.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL WELL ☒

GAS WELL ☐

OTHER

SINGLE ZONE ☐

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

Petral Exploration, LLC

3. ADDRESS OF OPERATOR c/o McIlroy & Associates, Inc.

2305 Oxford Lane, Casper, WY 82604

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface  
1104' FNL & 2473' FEL Sec. 33-T37S-R25E (SW NW NE)

At proposed prod. zone

1114' FNL & 2574' FNL Sec. 33-T37S-R25E (SE NE NW)

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

18 miles SE of Blanding, Utah

15. DISTANCE FROM PROPOSED

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also in nearest dir. unit line, if any)

74' Lease

1114' Unit

16. NO. OF ACRES IN LEASE

300 Lease--600 Unit

17. NO. OF ACRES ASSIGNED

TO THIS WELL

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLYING FOR, ON THIS LEASE, FT.

4000'

19. PROPOSED DEPTH

6015' TVD KB

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DP, ET, GA, etc.)

5572' GL

22. APPROX. DATE WORK WILL START\*

March 1, 1996

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
20"	16" - 0.25 wall thickness	1 thickness	80'	Cemented to surface
12 1/4"	9 5/8"	36#	1800'	Cemented to surface
8 3/4"	5 1/2"	15.5#	6015'	220 sks. cement (tentative)

Request is made for all information to be held CONFIDENTIAL.

It is proposed to drill a well at the above location with the primary zone of interest the Upper Ismay Mound formation at 5600' TVD. If the well proves productive, 5 1/2" casing will be cemented in place and the well completed. If the well is found non-productive, it will be plugged and abandoned and the surface restored as per BLM specifications.

See attached "Drilling Program" summary and "Surface Use Program" for details.

I hereby certify that I am responsible under the terms and conditions of the lease to conduct lease operations in conjunction with the application. Bond coverage pursuant to 43 CFR 3104 for lease activities is provided by BLM bond NO. UT 1040.

IF ABOVE TRACK DESCRIBES PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout prevention program, if any.

54. PETRAL EXPLORATION, LLC, Petraro Corporation, Manager

SIGNED

TITLE

Vice President

DATE

February 13, 1996

(This space for Federal or State office use)

PERMIT NO.

43-037-31773

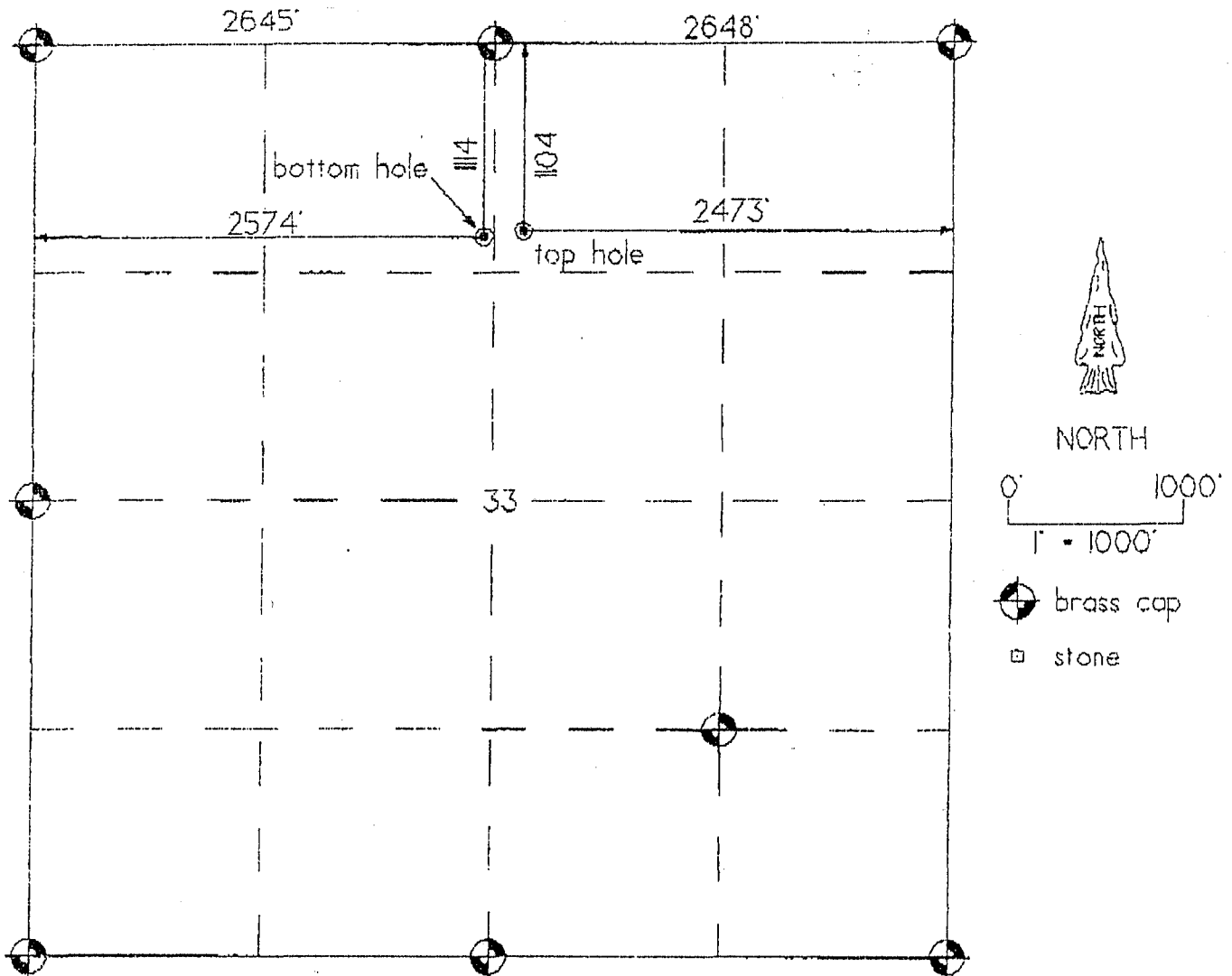
APPROVAL DATE

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY

\*See Instructions On Reverse Side

Well Location Plat

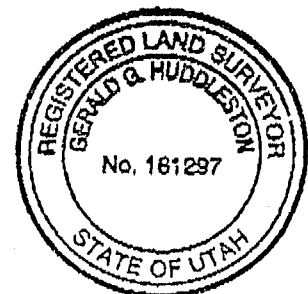


Well Location Description

PETRAL EXPLORATION

# 1 Knockdhu Federal  
1104'FNL & 2473'FEL (top hole)  
1114'FNL & 2574'FWL (bottom hole)  
Section 33, T.37 S., R.25 E., SLM  
San Juan County, UT  
5572' grd. el.

GPS surveyed.



14 February 1996

Gerald G. Huddleston

Gerald G. Huddleston, LS

The above is true and correct to my knowledge and belief.

HUDDLESTON LAND SURVEYING - BOX KK - CORTEZ, CO - (970) 565 -3330

Form 3160-3  
(November 1983)  
(formerly 9-331C)SUBMIT IN TRIPLICATE  
(Other instructions on  
reverse side)Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1995UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. Federal UTU 18452 A	
2. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME NA	
3. NAME OF OPERATOR Petral Exploration, LLC		7. UNIT AGREEMENT NAME Knockdhu Unit (UTU 75040X)	
4. ADDRESS OF OPERATOR c/o McIlnay & Associates, Inc. 2305 Oxford Lane, Casper, WY 82604		8. FARM OR LEASE NAME Knockdhu	
9. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1104' FNL & 2473' FEL Sec. 33-T37S-R25E (SW NW NE) At proposed prod. zone 1114' FNL & 2574' FWL Sec. 33-T37S-R25E (SE NE NW)		9. WELL NO. #1	
10. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE 18 miles SE of Blanding, Utah		10. FIELD AND POOL, OR WILDCAT Wildcat	
11. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 74' Lease 1114' Unit 4000'		11. SEC., T., R., M., OR B.L. AND SURVEY OR AREA 33-T37S-R25E	
12. NO. OF ACRES IN LEASE 300 Lease--600 Unit		12. COUNTY OR PARISH San Juan	
13. PROPOSED DEPTH 6015' TVD KB		13. STATE UT	
14. ELEVATIONS (Show whether DF, RT, GR, etc.) 5572' GL		14. ROTARY OR CABLE TOOL Rotary	
15. APPROX. DATE WORK WILL START March 1, 1996			

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
20"	16" - 0.25 wall thickness		80'	Cemented to surface
12 1/4"	9 5/8"	36#	1800'	Cemented to surface
8 3/4"	5 1/2"	15.5#	6015'	220 sks. cement (tentative)

Request is made for all information to be held CONFIDENTIAL.

It is proposed to drill a well at the above location with the primary zone of interest the Upper Ismay Mound formation at 5600' TVD. If the well proves productive, casing will be cemented in place and the well completed. If the well is found non-productive, it will be plugged and abandoned and the surface restored as per BLM specifications.

See attached "Drilling Program" summary and "Surface Use Program" for details.

I hereby certify that I am responsible under the terms and conditions of the lease to conduct lease operations in conjunction with the application. Bond coverage pursuant to 43 CFR 3104 for lease activities is provided by BLM bond NO. UT 1040.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout prevention program, if any.

SIGNED Dianne Shoryer Petrocor Corporation, Manager  
Dianne Shoryer, Vice President  
DATE February 13, 1996

PERMIT NO.

APPROVAL DATE

APPROVED BY

Assistant District Manager

DATE 3/4/96

CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED FLARING OR VENTING OF  
GAS IS SUBJECT TO NTL 4-A  
Dated 1/1/80

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

February 2, 1996

Utah Board of Oil, Gas & Mining  
Division of Oil and Gas  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

332 163  
Re: Application for Directional Drilling, Petral Exploration, LLC, #1 Knockdhu Federal,  
Surface Location: 1090' FNL & 2470' FEL (SW NW NE) Sec. 33-T37S-R25E  
Ideal Geologic Bottom Hole Location: 1135' FNL & 2530' FWL (SE NE NW)  
Sec. 33-T37S-R25E San Juan County, Utah 345 171

Attn: Mr. Frank Matthews:

On behalf of Petral Exploration, LLC, we hereby apply for approval to directionally drill the subject well. Petral has obtained the written consent of the only owner of oil and gas within 460' of the intended wellbore, Celsius Energy Company.

In compliance with paragraph R6443-11 of the Oil & Gas Conservation General Rules, attached are the following documents:

- 1) Written consent of Celsius Energy Company, and the
- 2) Directional Drilling Request, and the
- 3) location plat and enlarged sketch of proposed tolerance window, and the
- 4) proposed directional drilling program.

Please advise if additional information is needed.

Very truly yours,

McILNAY & ASSOCIATES, INC.

Stanley H. McInroy, P.E.

## DIRECTIONAL DRILLING REQUEST

The Oil and Gas Conservation Act, 40-6-1 Et. Seq. Utah Code Annotated (As amended 1993), Paragraph R649-3-11, Directional Drilling, states that an application for directional drilling may be approved by the division without notice and hearing when the applicant is the owner of all the oil and gas within a radius of 460 feet from all points along the intended well bore, or the applicant has obtained the written consent of the owner to the proposed directional drilling program.

The following information is provided in support of the requested exception:

**2.1 Operator:** Petral Exploration, Limited Liability Company  
c/o McIlnay and Associates  
2305 Oxford Lane  
Casper, Wyoming 83604

**2.2 Lease name, well number, field name, reservoir name, county of location:**  
Lease name: Knockdhu Unit (Federal, proposed)  
Well Number: 1  
Field Name: Wildcat  
Reservoir Name: exploratory target is Upper Ismay  
County: San Juan

**2.3 Location Plat:** Attached, shows the distance from the surface location to section and unit lines, the target location within the intended producing interval, and any point along the intended well bore outside the 460 foot radius for which the consent of the owner has been obtained. NOTE: When unitized, the lease line along the north-south center line of the section becomes moot.

Other owners within a 460 foot radius along the track of the proposed deviated well bore are:

Celsuis Energy Company  
1331 Seventeenth Street #800  
Denver, CO 80202  
Phone 303/296-8945  
Fax 303/294-9632

A letter from Celsius stating their non-objection to the directional drilling request is attached.

**2.4 Reason for intentional deviation:** Extreme terrain prohibits the drilling of a vertical hole at the desired subsurface location. Please see the attached topographic map. Seismic indicates that the proposed bottom hole location is the optimum location to penetrate the narrow, sinuous Upper Ismay mound.

## TOLERANCE WINDOW

REVISED BHL

1135 FNL

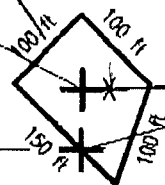
2530 FWL

ORIGINAL  
PROP BHL

1215 FNL

2562 FWL

(Surveyor)



PROP SURF LOC

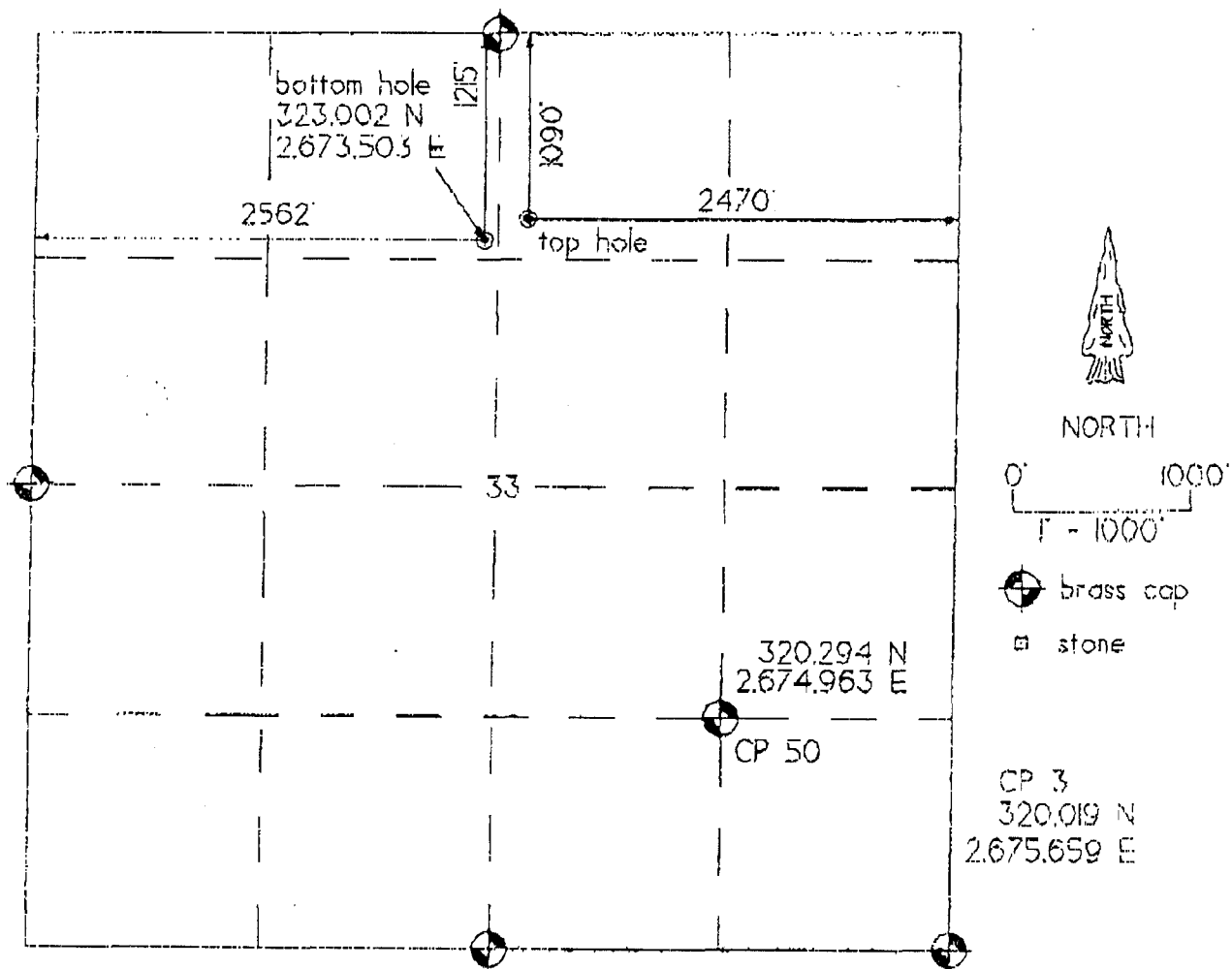
1090 FNL

2470 FEL

X = point of intersection  
of bore hole with target  
horizon.

Location Detail  
Scale 1 in = 200 ft



Well Location PlatWell Location Description

## PETRAL EXPLORATION

\* 1 Knockdhu Federal

1090' FNL &amp; 2470' FEL (top hole)

1215' FNL &amp; 2562' FWL (bottom hole)

Section 33, T.37 S., R.25 E., SLM

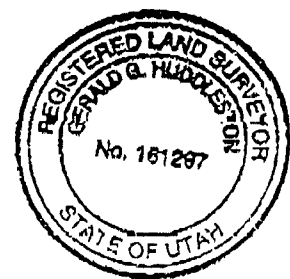
San Juan County, UT

5572' grd. el.

State plane coordinates from GPS:

323.127 N &amp; 2.673.749 E (top hole)

37°31'52.05" lat &amp; 109°10'34.92" long (top hole)



22 January 1996

*Gerald G. Huddleston*

Gerald G. Huddleston, LS

The above is true and correct to my knowledge and belief.

2666  
 HUDDLESTON LAND SURVEYING - BOX KK - CORTEZ CO - (970) 565-3330

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FEB 15 1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

5. Lease Designation and Serial No.  
U-18452A\* & U65915

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE

1. Type of Well  
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator  
Petral Exploration LLC

3. Address and Telephone No.  
1700 Lincoln St., Suite 5000, Denver, Colorado 80202

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1135 FNL & 2530 FWL of Section 33, T. 37S., R.25 E.  
San Juan County, Utah

7. If Unit or CA, Agreement Designation  
\*Unit Applied For (Knockdhu Unit)

8. Well Name and No.  
#1 Knockdhu

9. API Well No.

10. Field and Pool, or Exploratory Area  
Wildcat

11. County or Parish, State  
San Juan County, Utah

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent  
☐ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☒ Other Designation of Operator  
☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Petral Exploration, LLC as Operator is responsible for conducting all operations in accordance with the requirements of the Oil & Gas Lease, APD, Sundry Notice Approval, Regulations found in 43 CFR, and applicable Onshore Orders and /or Notice to Lessees.

Bond coverage for Operations conducted on this well is being provided by the Operator stated above in the form of a \$10,000.00 lease bond, x \$25,000.00-Statewide bond, \$150,000.00 nationwide Bond, or other (specify) . BLM bond number UT 1040 . Surety number if known Deposit Cert # 101741006.

\* Operator designation is for leased lands excluding SE1/4SE1/4 of Sec. 33, T.37S., R. 25 E.

Celsius Energy Company

Approval By Lessee: G. L. Nordloh  
Its: President & CEO

14. I hereby certify that the foregoing is true and correct

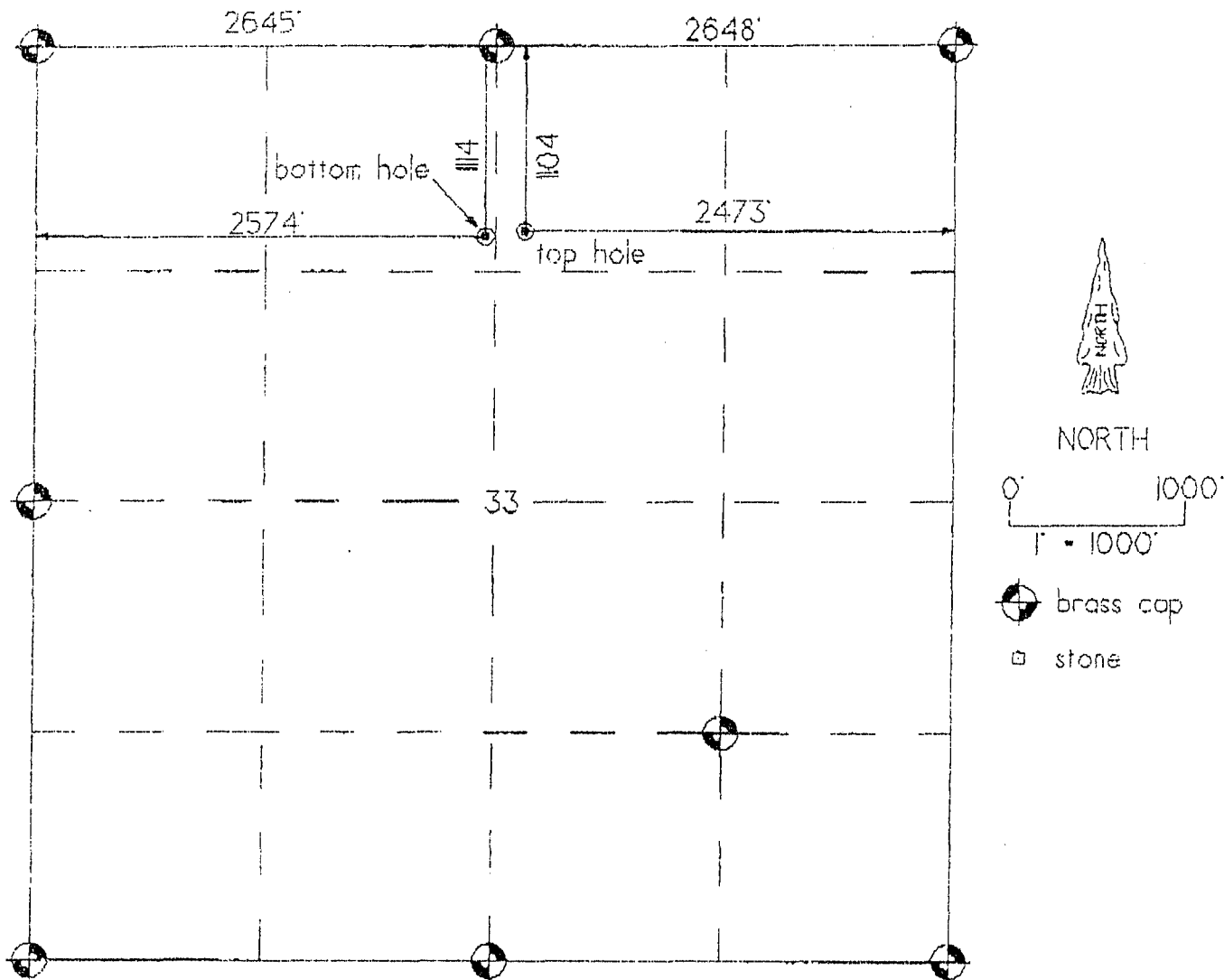
Signed Anthony R. Mayer Title Petral Exploration LLC Petraro Corporation, Manager  
(This space for Federal or State office use)

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
Conditions of approval, if any: \_\_\_\_\_

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

\*See Instruction on Reverse Side

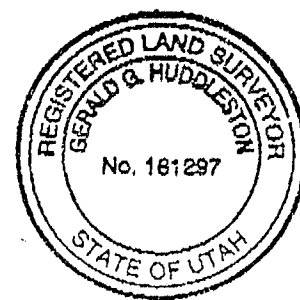
# Well Location Plat



## Well Location Description

PETRAL EXPLORATION  
 # 1 Knockdhu Federal  
 1104'FNL & 2473'FEL (top hole)  
 1114'FNL & 2574'FWL (bottom hole)  
 Section 33, T.37 S., R.25 E., SLM  
 San Juan County, UT  
 5572' grd. el.

GPS surveyed.



14 February 1996

*Gerald G. Huddleston*

Gerald G. Huddleston, LS

The above is true and correct to my knowledge and belief.

HUDDLESTON LAND SURVEYING - BOX KK - CORTEZ, CO - (970) 565 -3330

## **SURFACE USE PROGRAM**

**Petral Exploration, LLC**

**#1 Knockdhu Unit**

**Knockdhu Unit - UTU75040X**

**SW NW NE Sec. 33-T37S-R25E - Surface Location - U-65915**

**SE NE NW Sec. 33-T37S-R25E - Bottom Hole Location - U-18452A**

**San Juan Co., UT**

### **A. Existing Roads**

1. To visit the wellsite, proceed south for 1 mile from the Comfort Inn in Blanding, Utah and turn left at Amer-Gas on 700 E Brown Canyon Road. Continue 1 mile to County Road #206 and turn right. Stay on Co. 206 for 8.5 miles (keep to left at fork) and go an additional 15.4 miles (total of 23.9 miles on Co. 206) to Perkins Ranch Road (County Road # 347) and turn left. Cross creek and turn right around trailer house in front of ranch house and go east 4 miles through Wexpro Patterson #1 well. Go 500' and take the left fork for 1.2 miles to silver tank and turn right for 1/2 mile to flags and 2 track road. Turn left and proceed north over buried pipeline for 0.8 mile to forks (flagging on left). Turn left and back to SW for 1/2 mile on proposed new access road to proposed surface location of well.
2. Existing roads are paved, gravel or dirt and are suitable for heavy loads. Existing roads, excluding those maintained by the State or County, will be maintained in the same or better condition. Petral will participate in any cooperative agreement that currently exists, or might be required in the future, to improve and maintain the existing roads. The access road will not cross Indian lands. With the exception of State or County maintained roads, the existing roads are on Bureau of Land Management and Redburn Flying R. Ranch.
3. Proposed wellsite and access roads: See Figures 1 - 3.

### **B. Access Roads to be Constructed or Reconstructed:**

See Figure 2. Two pipelines will be crossed in the SE/4 Section 33-T37S-R25E. The pipeline owners (Western Gas and Questar Pipeline) have been contacted and have granted us permission to cross the lines. The fill over these lines will be increased or the lines flagged, as required by the owners. The road from these crossings to the new access road will be upgraded with blading and at least 5 low water crossings. The last 1/2 mile to the location will be a newly constructed access road bladed and with at least 2 low water crossings. These roads will be upgraded and graveled as needed if production is obtained.

C. Existing Wells within a One-Mile Radius:

(See Figure 2)

1. Water Wells: None
2. Injection Wells: None
3. Abandoned Wells: None
4. Disposal Wells: None
5. Producing Wells: 1
6. Drilling Wells: None

D. Location of Existing and/or Proposed Facilities if Well is Productive:

1. Facilities Required in the Event of Production on Well Pad:

a. Location of Facilities:

See Figure 5 for location of facilities. All facilities will be on the wellsite pad. Production facilities (including dikes) will be placed on the cut portion of the location (Figure 5).

b. Dimension of Facilities:

Production pad a maximum 195' x 310' (See Figure 5). A heater treater will be located approximately 140' north of the well. Two 400 bbl. oil storage tanks will be located approximately 60' west of the heater treater and 125' northwest of the well. The dikes for the production facilities will be constructed of compacted subsoil, hold the capacity of the largest tank, and be independent of the back cut. That portion of the drilling pad that is not needed for production will be rehabilitated.

2. Facilities Required off Well Pad in the Event of Production:

Upgrade and maintain access roads as necessary to prevent soil erosion and accommodate year-around traffic.

E. Location and Type of Water Supply:

(See figure 1)

1. The water will be trucked from artesian wells located in Section 7-T38S-R25E. Permits will be obtained from the State Engineer.
2. The water source is not located on State land. Water will not be obtained from Indian projects.
3. A water well will not be drilled.

#### F. Construction Materials:

1. Native soil will be utilized in the drilling site and access road. Newly built access road (1/2 mile) will be graveled with 6" of pit run gravel if a producing well is obtained. Additional gravel may be needed for the pulling unit pad and wellsite if the well is found to be productive.
2. No construction material from Indian lands.
3. Crushed rock, if necessary, will be purchased from construction contractors in the area from existing gravel pits and hauled over access roads shown on Figures 1 & 2.

#### G. Methods for Handling Waste Disposal:

1. Cuttings:  
Reserve pit 100' x 150' x 10' (3:1 slope) fenced on three sides during drilling operations. The pit will be lined with 24 tons of bentonite worked in with a cat. The fourth side will be fenced when the rig moves out (See Figures 3-6).
2. Drilling Fluids:  
Reserve pit 100' x 150' x 10' (See figures 3 & 4). The reserve pit will be constructed to prevent the collection of surface runoff.
3. Produced Fluids:
  - a. Recovered during drill-stem tests will be disposed of in a test tank.
  - b. During completion, produced fluids will be contained in swab tanks (See Figure 6).
  - c. Water disposal will be provided in accordance with BLM regulation NTL-2B.
4. Sewage:  
Porta potty with tank or portable sewage treatment plant (i.e. On Site Sewage Treatment, Inc.) capacity of 700 gal/day of treated water disposed of into reserve pit. Any other sewage will be removed from the location by a commercial service. Closed septic tank may be used for the camp trailer.
5. Garbage and Trash:
  - a. An enclosed trash bin will be utilized.
  - b. Engine oil and lubricants will be collected in containers.
6. Clean-up of Wellsite Area after Rig is removed:
  - a. Trash will be carried off site for disposal.
  - b. All pits and wellsite will be covered, leveled and reseeded as per BLM instructions.

H. Ancillary Facilities:      None.

#### I. Wellsite Layout:

1. Cross section: See Figure 3 for elevations and cross section. Maximum cut is approximately 12' at the west site of the drilling pad. Maximum fill is 10' at the southeast corner of the drilling pad.
2. Orientation of rig, pits and associated equipment (See Figure 4).
3. Six inches of topsoil will be removed from the location (drilling pad) including areas of cut and fill. Soil will be stockpiled adjacent to the wellsite pad (See Fig.3).
4. Access road, living facilities, parking area, etc. (See Figure 4).

#### J. Plans for Restoration of Surface:

1. All pits will be backfilled, leveled and contoured to as near the current condition as is practical.
2. Revegetation and rehabilitation of the wellsite and access road as per BLM specifications.
3. All pits will be fenced until dry and then backfilled.
4. If oil is present on the reserve pit, overhead flagging will be installed.
5. Rehabilitation will be commenced when the rig moves out with the location restored by Fall, 1996. Complete fall seeding after September, 1996 and prior to ground frost. Rehabilitation will be completed by November 1, 1997.

#### K. Surface Ownership:

1. Access roads:  
See Figures 1 & 2 Bureau of Land Management (on lease) and Redburn Flying R Ranch. An easement has been obtained from the Redburn Flying R Ranch across portions of Section 4-T38S-R25E and Section 33-T37S-R25E.
2. Well Location:  
Bureau of Land Management - See Figures 1 & 2.

#### L. Other Information:

1.
  - a. BLM to be notified 48 hours prior to starting dirtwork.
  - b. Wellsite and access road are located in arid, sandy, hilly terrain.
  - c. Soil is shallow, sandy, and silty.
  - d. Vegetation consists of very sparse native grasses and sparse sagebrush, and small trees.
  - e. The area is a natural habitat for wildlife (i.e., deer, antelope, rabbits, etc.).

2. Livestock were grazing in the area when the wellsite was visited.
3.
  - a. Intermittent streams (i.e., flow during wet seasons of the year) do exist in the area.
  - b. There are no occupied buildings within one mile of the proposed wellsite.
  - c. Historical, cultural and archeological survey has been conducted by 4 Corners Archeological Services. No cultural or archaeological evidence was discovered in the area of the access road and wellsite.

M. Lessee's or Operator Representative and Certification:

**Operator**

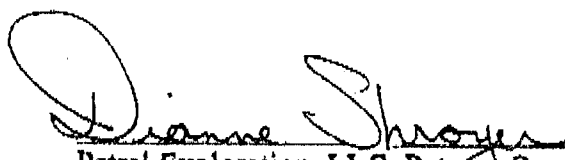
Petral Exploration, LLC------(303) 832-3131  
P. O. Box 5083  
Denver, CO 80202

**Representative**

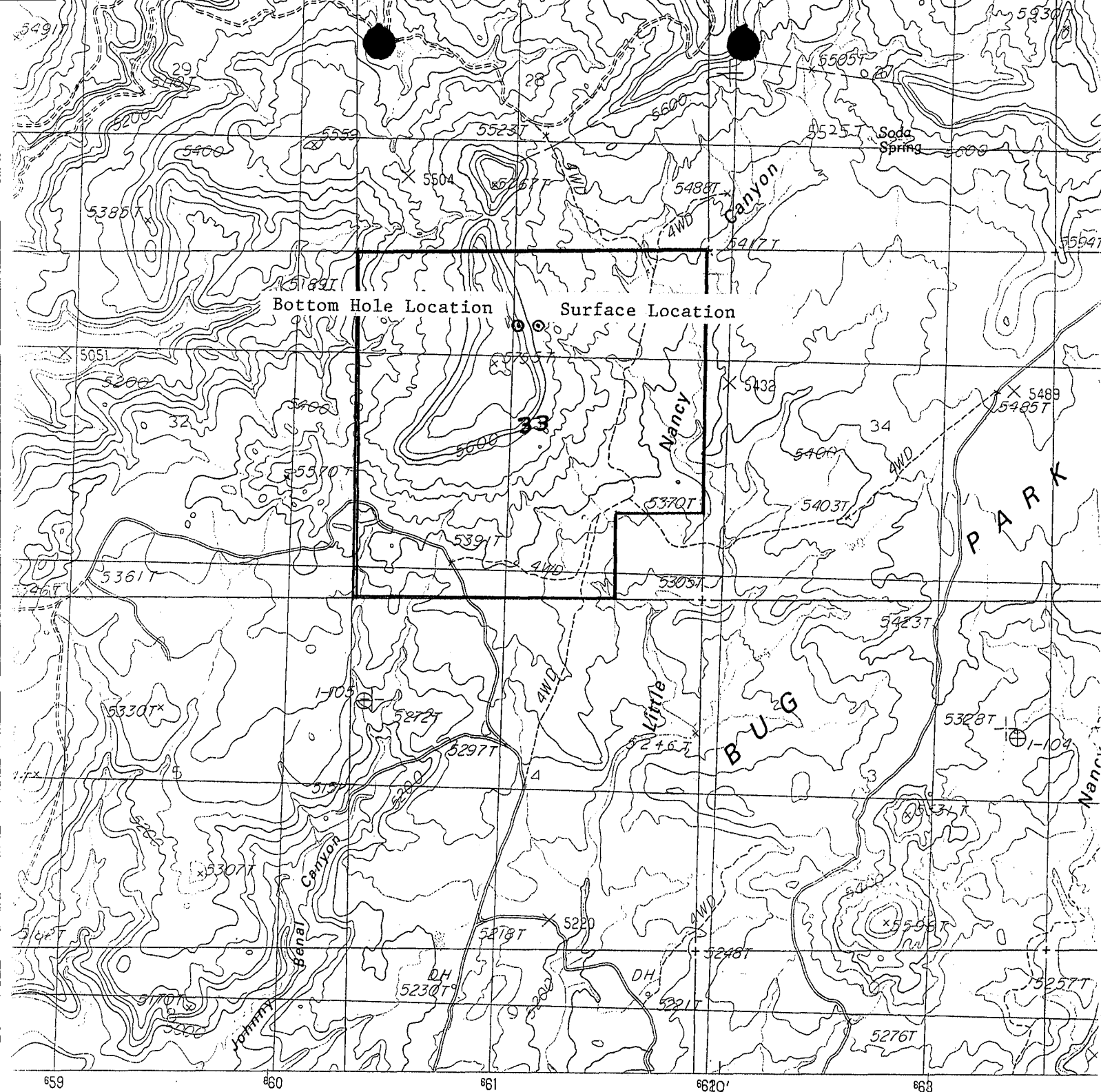
McIlnay & Associates, Inc.------(307) 265-4351  
2305 Oxford Lane  
Casper, WY 82604

I hereby certify that I or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Petral Exploration, L.L.C. and its' contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

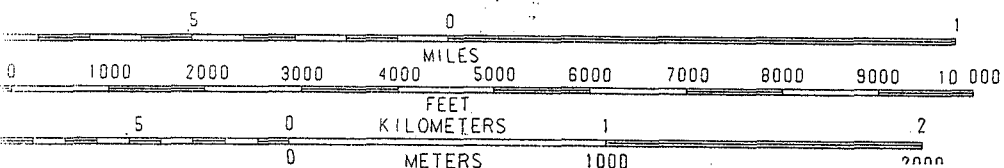
February 13, 1996  
Date

  
\_\_\_\_\_  
Petral Exploration, LLC, Petroco Corp., Manager  
Dianne Shroyer, Vice President

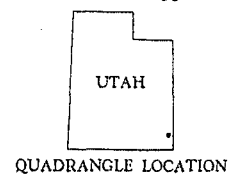




SCALE 1:24 000



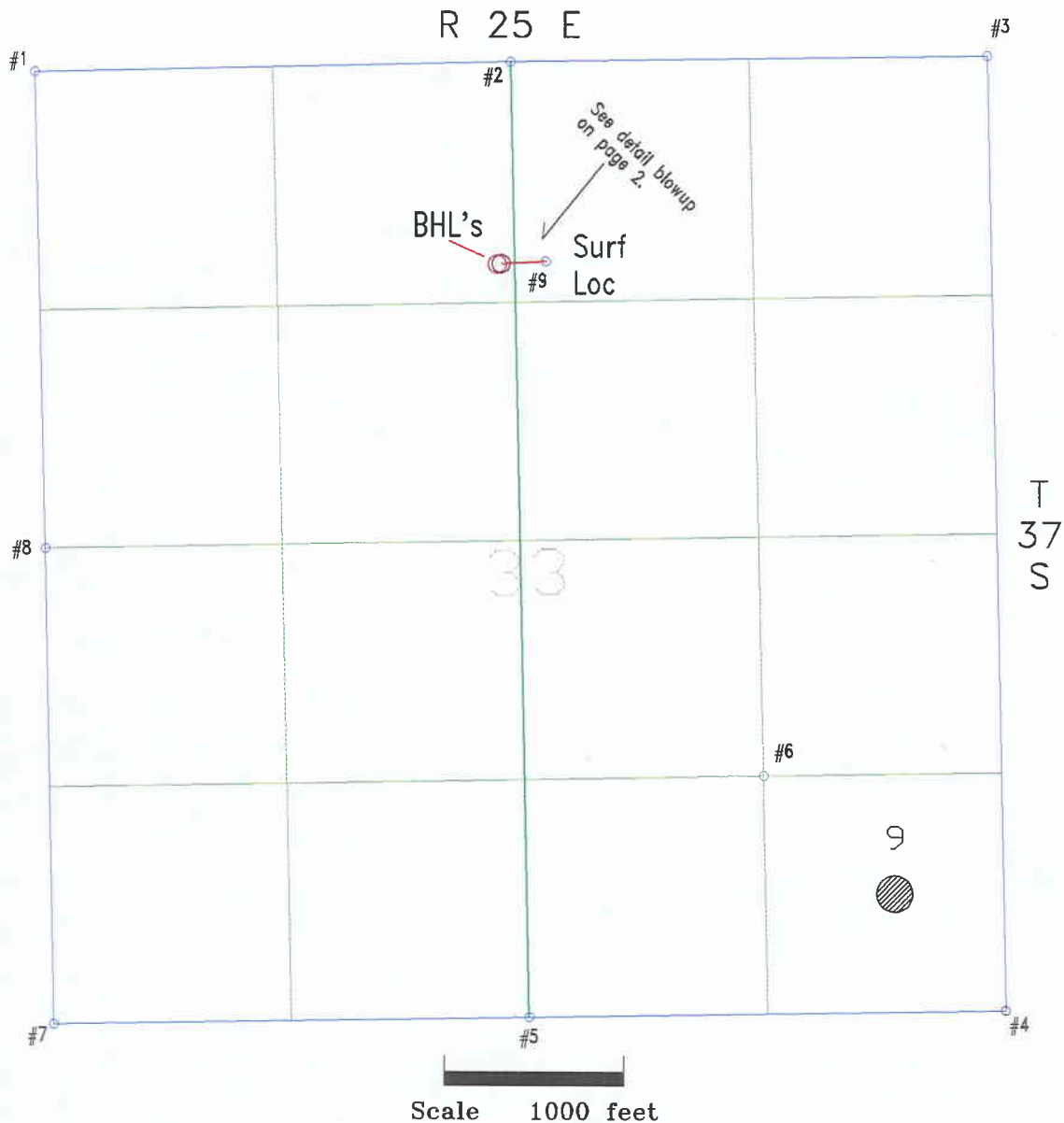
CONTOUR INTERVAL 40 FEET



TOPOGRAPHIC MAP

Petral Exploration, LLC  
#1 Knockdhu Unit, Lease UTU18542 BHL  
Knockdhu Unit - No. UTU 75040X  
Section 33-T37S-R25E  
San Juan Co., UT

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 8022  
OR RESTON, VIRGINIA 22092



○ #1 Huddleston GPS station

The Surface Location is 1104' FNL & 2473' FEL

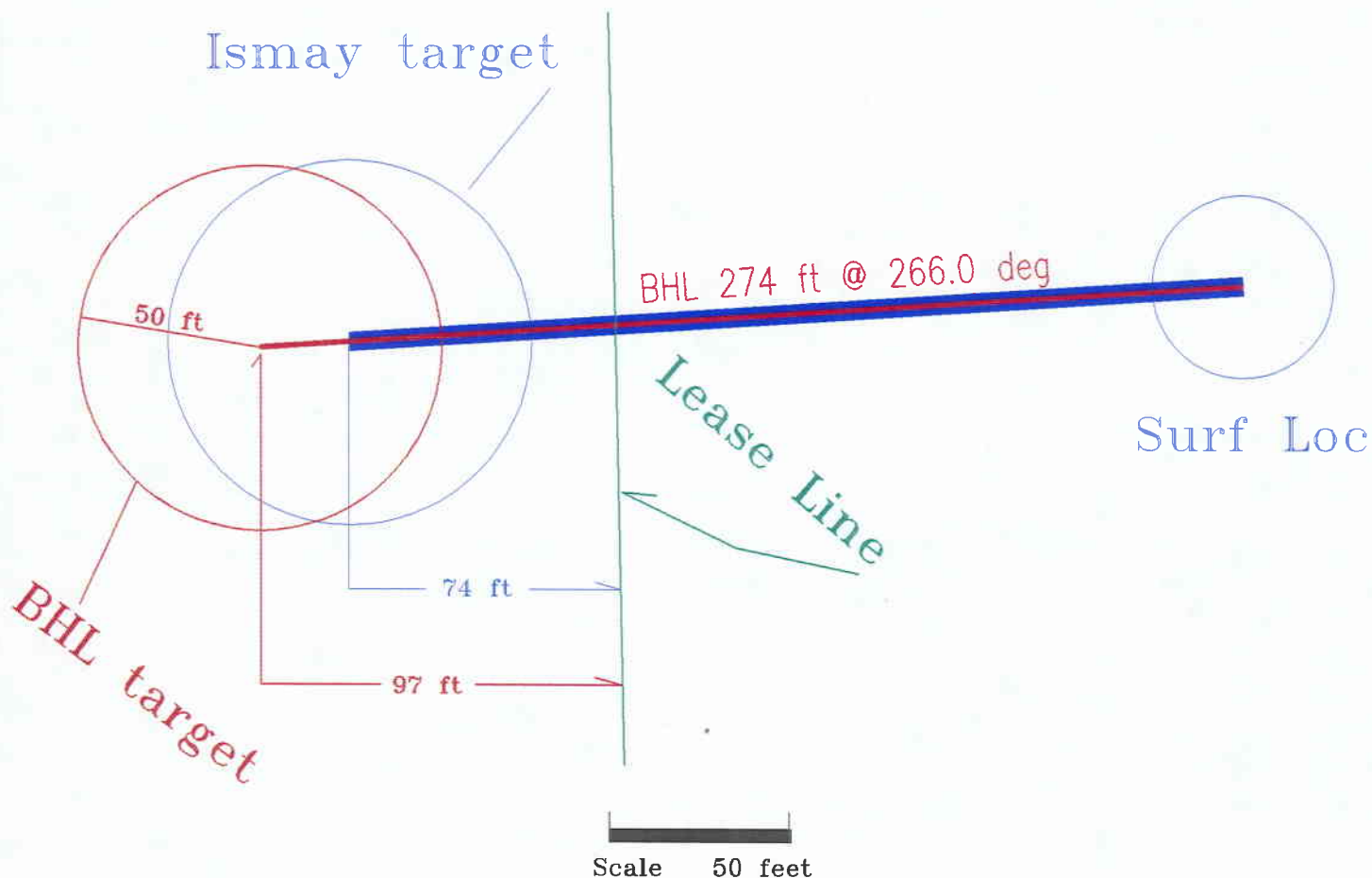
The intersection of the bore hole and Ismay mound is 1114' FNL & 2574 FWL

The Bottom Hole Location is 1116' FNL & 2549' FWL

Petral Exploration, LLC,  
#1 Knockdhu Unit Well

This plat based on a GPS survey  
of Section 33 T37S R25E  
San Juan County, Utah by  
G. Huddleston 02/08/1996.  
It is plotted in real world  
coordinates (UTM Zone 12).  
The coordinates ARE preserved  
in the drawing.

<b>rose exploration associates</b>	
1200 Denver Club Building - 518 17th St. - Denver, Colorado 80202 - (303) 595-0654	
<b>LEASE SURVEY/BOTTOM HOLE LOCATIONS</b>	
Plot of G. Huddleston GPS Survey	
Section 33 T37S R25E	
Geologist: MEW	Date Created: 02/10/1996 Modified:
Geophysicist: JNE	State: UTAH
Engineer: BAM	County: San Juan
Drawn By: MEW	Geological Play: Upper Ismay-Desert Creek
Contour Interval: N/A	File: V:\PB\KNOCKDHU\LSE_SURV.dwg



This is a digital enlargement of the Huddleston GPS survey of Section 33 T37S R25E. It was prepared to show the relationship of the intersection of the bore hole with the top Upper Ismay mound and the bottom hole location to the lease line. Real world coordinates ARE NOT preserved in this drawing.

Petral Exploration, LLC,  
#1 Knockdhu Unit Well

**rose**  
**exploration**  
**associates**

1200 Denver Club Building - 518 17th St. - Denver, Colorado 80202 - (303) 595-0664

# LEASE SURVEY/BOTTOM HOLE LOCATIONS

DETAIL OF BHL AND LSE LINE

From G. Huddleston GPS Survey

Geologist: MEW	Date Created: 02/10/1996 Modified:
Geophysicist: JNE	State: UTAH
Engineer: BAM	County: San Juan
Drawn By: MEW	Geological Play: Upper Ismay-Desert Creek
Contour Interval: N/A	File: V:\PB\KNOCKDHU\LSE_SURV.dwg

# Petral Exploration

Structure : #1 Knockdhu Federal

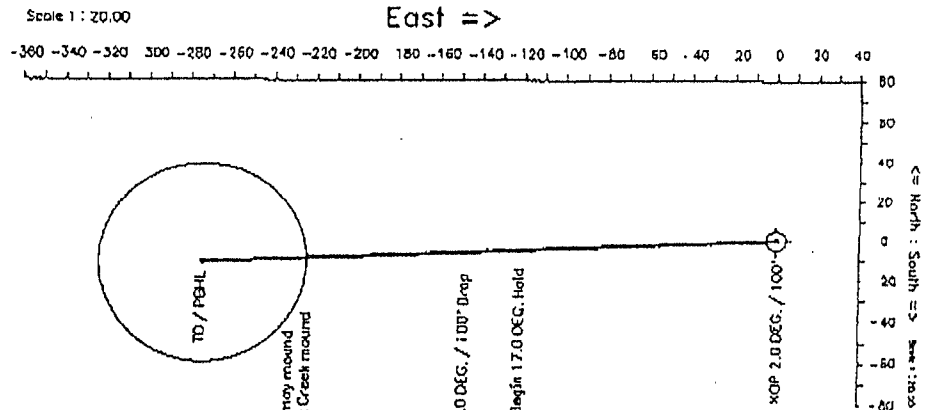
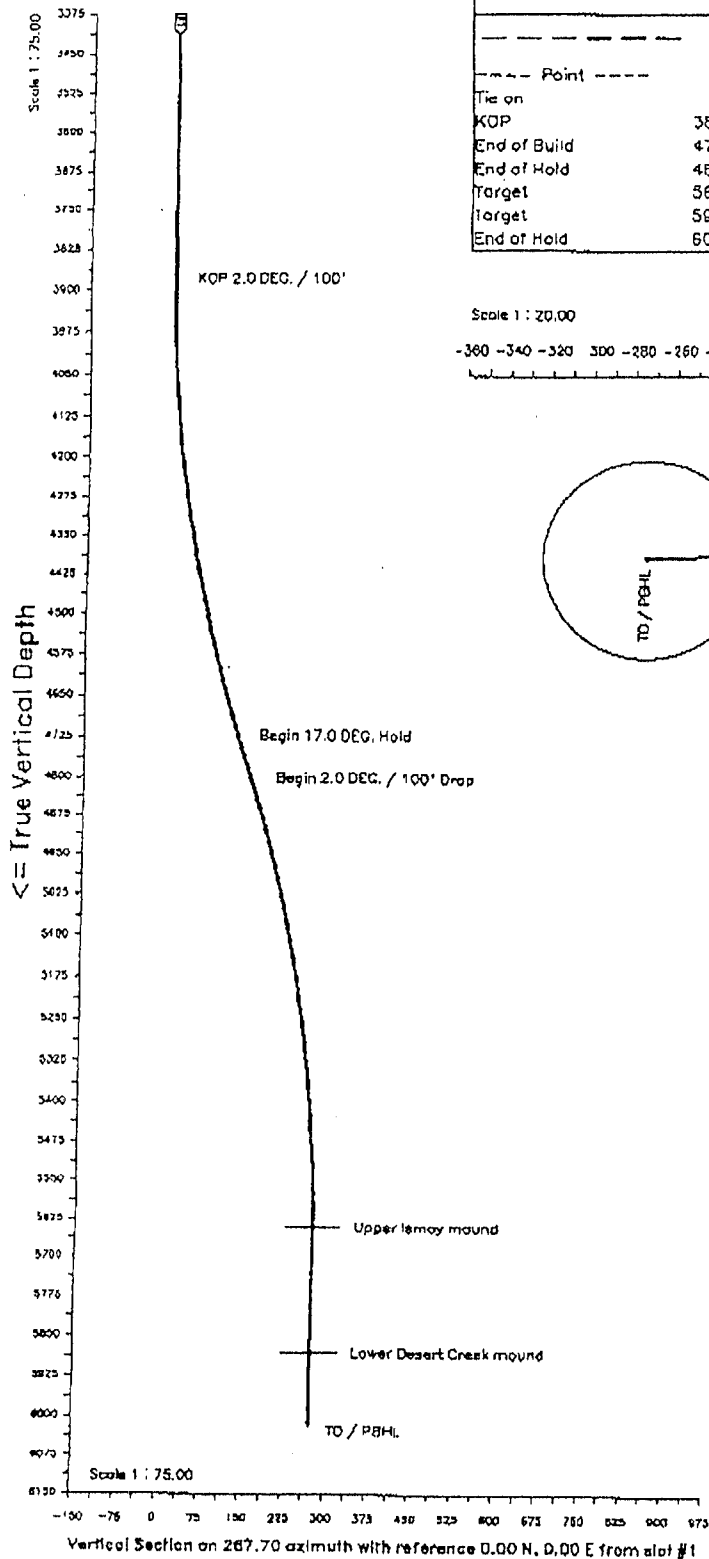
Well : #1

Field : San Juan County

Location : Utah

## WELL PROFILE DATA

Point	MD	Inc	Dir	TVD	North	East	DLS (deg/100ft)
Tie on	0	0.00	267.70	0	0	0	0.00
KOP	3887	0.00	267.70	3887	0	0	0.00
End of Build	4737	17.00	267.70	4724	-5	-125	2.00
End of Hold	4818	17.00	267.70	4802	-6	-149	0.00
Target	5668	0.00	267.70	5640	11	274	2.00
Target	5908	0.00	267.70	5880	-11	-274	0.00
End of Hold	6043	0.00	267.70	6015	-11	-274	0.00



UIM Zone 12

MAP DRAWN TO GRID NORTH



Schlumberger

Anadrill

Created by : WYC DPC - Ken Sullivan

Date plotted : 12-Feb-98

Plot Reference is REV 1.

Coordinates are in feet reference slot #1.

True Vertical Depths are reference wellhead.

--- Anadrill Schlumberger ---

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert. Depth	R E C T A N G U L A R C O O R D I N A T E S			Dogleg Deg/100ft	Vert Sect
0.00	0.00	267.70	0.00	0.00 N	0.00 E	0.00	0.00	
500.00	0.00	267.70	500.00	0.00 N	0.00 E	0.00	0.00	
1000.00	0.00	267.70	1000.00	0.00 N	0.00 E	0.00	0.00	
1500.00	0.00	267.70	1500.00	0.00 N	0.00 E	0.00	0.00	
2000.00	0.00	267.70	2000.00	0.00 N	0.00 E	0.00	0.00	
2500.00	0.00	267.70	2500.00	0.00 N	0.00 E	0.00	0.00	
3000.00	0.00	267.70	3000.00	0.00 N	0.00 E	0.00	0.00	
3500.00	0.00	267.70	3500.00	0.00 N	0.00 E	0.00	0.00	
3886.77	0.00	267.70	3886.77	0.00 N	0.00 E	0.00	0.00	KOP 2.0 DEG. / 100'
3986.77	2.00	267.70	3986.75	0.07 S	1.74 W	2.00	1.75	
4086.77	4.00	267.70	4086.61	0.28 S	6.97 W	2.00	6.98	
4186.77	6.00	267.70	4186.22	0.63 S	15.68 W	2.00	15.69	
4286.77	8.00	267.70	4285.47	1.12 S	27.86 W	2.00	27.88	
4386.77	10.00	267.70	4384.24	1.75 S	43.49 W	2.00	43.52	
4486.77	12.00	267.70	4482.39	2.51 S	62.55 W	2.00	62.60	
4586.77	14.00	267.70	4579.83	3.41 S	85.03 W	2.00	85.10	
4686.77	16.00	267.70	4676.41	4.45 S	110.89 W	2.00	110.98	
4736.77	17.00	267.70	4724.35	5.02 S	125.08 W	2.00	125.18	Begin 17.0 DEG. Hold
4818.40	17.00	267.70	4802.42	5.98 S	148.92 W	0.00	149.04	
4818.41	17.00	267.70	4802.42	5.98 S	148.93 W	2.00	149.05	Begin 2.0 DEG. / 100' Drop
4868.40	16.00	267.70	4850.35	6.55 S	163.11 W	2.00	163.24	
4968.40	14.00	267.70	4946.94	7.59 S	188.97 W	2.00	189.12	
5068.40	12.00	267.70	5044.37	8.49 S	211.45 W	2.00	211.62	
5168.40	10.00	267.70	5142.53	9.25 S	230.51 W	2.00	230.70	
5268.40	8.00	267.70	5241.29	9.88 S	246.14 W	2.00	246.34	
5368.40	6.00	267.70	5340.54	10.37 S	258.32 W	2.00	258.53	
5468.40	4.00	267.70	5440.16	10.72 S	267.03 W	2.00	267.24	
5568.40	2.00	267.70	5540.01	10.93 S	272.26 W	2.00	272.48	
5668.40	0.00	267.70	5640.00	11.00 S	274.00 W	2.00	274.22	Upper Ismay mound
5908.40	0.00	267.70	5880.00	11.00 S	274.00 W	0.00	274.22	Lower Desert Creek mound
6000.00	0.00	267.70	5971.60	11.00 S	274.00 W	0.00	274.22	
6043.40	0.00	267.70	6015.00	11.00 S	274.00 W	0.00	274.22	TD / PBHL

MD	TVD	Rectangular Coords.		Comment
3886.77	3886.77	0.00 N	0.00 E	KOP 2.0 DEG. / 100'
4736.77	4724.35	5.02 S	125.08 W	Begin 17.0 DEG. Hold
4818.41	4802.42	5.98 S	148.93 W	Begin 2.0 DEG. / 100' Drop
5668.40	5640.00	11.00 S	274.00 W	Upper Ismay mound
5908.40	5880.00	11.00 S	274.00 W	Lower Desert Creek mound
6043.40	6015.00	11.00 S	274.00 W	TD / PBHL

Targets associated with this wellpath

=====

Target name	Position	T.V.D. Local rectangular coords. Date revised		
Lower Desert Creek m	2168801.000,13632351.000	5880.00	11.00S	274.00W 12-Feb-96
Upper Ismay mound	2168801.000,13632351.000	5640.00	11.00S	274.00W 12-Feb-96

All data is in feet unless otherwise stated  
 Coordinates are from slot #1 and TVDs are from wellhead.  
 Vertical section is from wellhead on azimuth 267.70 degrees.  
 Calculation uses the minimum curvature method.

## DRILLING PROGRAM

Petral Exploration, LLC

#1 Knockdhu Unit

Unit - UTU75040X

1104' FNL & 2473' FEL Sec. 33-T37S-R25E - Surface Location

1114' FNL & 2574' FWL Sec. 33-T37S-R25E - Bottom Hole Location - U-18452A

San Juan Co., UT

### A. Surface Formation:

Morrison

### B. Estimated Formation Tops: - (KB Measurements)

<u>Formation</u>	<u>TVD Depth (KB)</u>
Morrison . . . . .	Spud
Entrada . . . . .	775
Navajo . . . . .	970
Wingate . . . . .	1470
Chinle . . . . .	1660
Shinarump . . . . .	2470
Cutler . . . . .	2665
Honaker Trail . . . . .	4555
La Sal . . . . .	5300
Upper Ismay . . . . .	5600
Upper Ismay massive anhydrite . . . . .	5630
Upper Ismay mound . . . . .	5640
Hovenweep Shale . . . . .	5740
Lower Ismay . . . . .	5780
Lower Ismay anhydrite . . . . .	5790
Lower Ismay carbonate . . . . .	5820
Gothic Shale . . . . .	5825
Upper Desert Creek . . . . .	5830
Upper Desert Creek anhydrite . . . . .	5840
Lower Desert Creek . . . . .	5870
Lower Desert Creek anhydrite . . . . .	Absent
Lower Desert Creek mound . . . . .	5890
Burrowed Zone . . . . .	5940
Chimney Rock Shale . . . . .	5965
Akah . . . . .	5980
Salt . . . . .	6020
Total Depth . . . . .	6015

C. Estimated Depths at which Anticipated Water, Oil, Gas or other Mineral-Bearing Formations are Expected to be Encountered:

Hydrocarbon bearing zones may be found from 5,640' (Upper Ismay mound) to 5,940'. Commercial water zones are not anticipated. All formations below approximately 775' may contain water. Fresh water zones will be protected through casing and cementing programs (see parts E & F).

D. Minimum Pressure Control Equipment & Auxiliary Equipment: (see attached diagram)

1. One 11" - 3000 psig annular preventer. One 11" - 3000 psig double ram blowout preventor with blind rams and one 4 1/2" drill pipe ram (above blind ram) will be installed and utilized prior to drilling below 9 5/8" surface csg. Flow sensor will be installed prior to drilling below surface casing and utilized to T.D.
2. Blowout preventor or drilling spool will be equipped with one 3" and one 2" side outlet.
3. A 3000 psig choke manifold with two (2) adjustable chokes will be installed prior to drilling below surface casing. The choke line will be as straight as possible and turns, if required, will have a targeted T block.
4. An accumulator rated at 3000 psig W.P. with a minimum of three (3) hydraulic control stations will be utilized. One for annular, one for blind rams and one for pipe rams. Remote controls will be located at the accumulator house at G.L. and on the floor. Manual controls (e.g. hand wheels) will be located at G.L. under the substructure. A valve shall be installed in the hydraulic closing line to serve as a locking device when the accumulator system is inoperative.
5. Pressure testing procedures and requirements.  
Prior to drilling out below the 9 5/8" surface casing, surface casing will be tested to 2500 psig (70% of minimum internal yield of the 9 5/8", 36#/ft., K-55 surface casing) for a minimum of 5 min. BOP stack and associated equipment (e.g., choke manifold, lower and upper kelly cocks, valves, etc.) will be tested to 3000 psig for 15 min. utilizing a test plug. Certified BOP testing service company will be utilized for pressure testing. All pressure testing operations must be witnessed by Petral's well site representative (McIlnay & Associates, Inc.).
6. Drilling contractor will perform a daily operational check of all BOP equipment (e.g. includes associated equipment). Pipe and blind rams shall be activated each trip.
7. All BOP pressure testing and operational check will be recorded in the daily "Tour" book.
8. A BOP and pit level drill will be conducted by the drilling contractor weekly and noted in the "tour" report book.
9. 24 hours prior to pressure testing notify the BLM, and Utah Division of Oil, Gas & Mining.

Every 30 days BOP and accessory equipment must be pressure tested to 2500 psig. Notify the BLM and Utah Division of Oil, Gas & Mining prior to test.

### E. Casing Program:

#### Conductor Casing:

80' of 16" pipe cemented in place to surface.

#### Surface Casing:

≈45 Jts. - 1800', 9 5/8", 36 #/ft, J-55, ST&C, "A" Grade (new).

#### Accessory Equipment

1 - 9 5/8" Guide Shoe

1 - 9 5/8" Insert Float installed 1st joint above shoe.

1 - 9 5/8" Centralizer placed middle of shoe joint.

1 - 9 5/8" Centralizer on 2nd collar above shoe.

3 - 9 5/8" Centralizer thereafter on every 4th collar for 3 centralizers.

3 - 9 5/8" Centralizer thereafter on every 6th collar for additional 3 centralizers.

1 - 9 5/8" Centralizer placed 3rd collar from surface.

9                      Total Centralizers

#### Production Casing (New):

Interval	Net-Ft.	Gross-Ft	Specifications
0 - 6,015'	6,015'	6,050'	5 1/2", 15.5#/ft., J or K-55, ST&C or LT&C, New

#### Accessory Equipment

To be determined at time of need.

#### Testing Procedure:

At time of BOP testing and prior to drilling out, surface casing will be tested to 70% of burst pressure for new casing (2500 psig). Production casing will be pressure tested to a minimum of 3000 psig prior to commencement of completion.

### F. Cementing Program: Check water quality for all cementing slurries.

Surface Casing: (Tentative - volumes and types may be changed. Designed to circulate cement to surface - 100% excess.)

Lead Slurry: 500 sks. 65/35 Poz mix, w/2% CaCl<sub>2</sub> & 1/4#/sk. Flocele  
Slurry yield - 1.79 CF/sk

Tail Slurry: 200 sks. Class "G" cement w/2% CaCl<sub>2</sub> & 1/4#/sk. Flocele  
Slurry yield - 1.15 CF/sk

Note: If cement does not circulate to surface, utilize 1" to bring to surface.



Production Casing: (Cemented minimum of 1000' fillup above potential pay zone(s))  
Preflush: 10 Bbls. fresh water  
 20 Bbls. mud flush (or equivalent)

Lead Slurry: 220 sks. Class "G" Cement w/0.25#/sk. Flocele & 0.5% B14 (fluid loss).

Note: Slurry volume to be recalculated based on hole caliper and number and depth of zones. 25% excess and 8 3/4" hole used for initial calculations.

#### G. Drilling Fluids:

Depth	0 - 1800'	1800' - *4200'	4200' - *5900'	*5900' - T.D.
Wt. - #/gal	8.4 - 8.9	8.4 - 8.9	*18.6 - 8.9	*59 - 11.5
Vis. - sec.qt.	27 - 40	30 - 35	*234 - 40	*234 - 40
WL - cc	NC	NC	*38 - 10	8 - 10
Ph	NC	NC	*49.0 - 10	9.5
PV/YP	--	--	6-10/8-16	6-10/8-16
Gels (sec/ min)	--	--	1-4/3-9	1-4/3-9
Type System	FWG	FWG/SDF 2000 Sweeps	LSND	LSND

\* Or at KOP

\*1 Drill Upper Ismay mound with as low a mud weight that can be achieved.

\*2 Recommended Viscosity:

Coring - 42-44 sec./qt.

Logging - 50 sec./qt.

DST's - 42-44 sec./qt.

\*3 Prior to penetrating the Upper Ismay mound.

\*4 Raise Ph to 10 prior to drilling anhydrites.

\*5 Lower Desert Creek may be overpressured and require a weighted mud system.

\*6 Prior to penetrating the Upper Ismay Mount @ 5640' or the Lower Desert Creek Mound add 100 ppm nitrates to the mud system.

Sufficient mud materials to maintain mud requirements and meet minor lost circulation and blowout problems will be on the wellsite. The pits will be monitored on trips to assure that the hole is kept full while tripping the drilling string. A pit volume totalizer (PVT), stroke counter & flow sensor will be utilized below the surface casing setting depth to T.D.

#### H. Coring, Testing, Logging and Tentative Completion Program:

- Two ≈60' cores of Upper Ismay mound at estimated depth of 5,660' TVD.  
 One ≈ 60' core of Lower Desert Creek mound at an estimated depth of 5900 TVD.  
 On site geologist to pick core point and samples for analyses.

2. Drill stem tests will be at the discretion of the operator and will be based on shows, logs, hole conditions, etc.
3. If a completion attempt is to be made, 5 1/2" casing will be cemented into place. The following presents a summary of tentative completion procedures.
  - a. Perforate pay zones with approximately 4 shots/ft.
  - b. Perforations may be stimulated w/HCl acid.
  - c. A Sundry Notice will be filed with the final completion plan.

Note: All perforations and the size of stimulation jobs are tentative and final design will be based on electric logs, cores, and drill stem test data.
4. Logging:
  - GR-DLL-MSFL (min) - Base surface casing to T.D.
  - GR-BHCS (long spaced integrated) w/Cal - Base surface casing to T.D.
  - GR-FDC-CNL-w/PE (min.) - Base surface casing to T.D.
  - SHDT - Minimum run
5. Samples:
  - 30' samples from 1,800' - 4,500'
  - 10' samples 4,500' to TD

All cutting samples are to be washed and stored in properly marked cloth bags. Tie the sample bags in 100' depth groups to dry. Store in a clean, dry place. Sample depth intervals may be changed at the discretion of the geologist.

I. Abnormal Conditions or Potential Hazards:

Potential problems include possible water flows to 5320'; abnormal pressure in Lower Desert Creek Carbonate ( $\approx 3500$  psig); lost circulation and seepage, surface to TD w/possible differential sticking. Estimated temperature at T.D. 140° F. Hydrogen sulfide gas is not anticipated.

J. Auxiliary Equipment Required: See Paragraph D.

K. Anticipated Starting Date of Drilling Operations:

Plan to start drilling  $\approx$  March 1, 1996. 21 days should be required to drill, test, log and set casing.

L. Additional Considerations: See Attached Directional Drilling Plan.

1. Drill surface hole taking directional single shot measurements.  
Maximum deviation @ 1800'  $< 2^\circ$ , with maximum dogleg  $2^\circ/100'$ .
2. Continue to take directional single shot measurements until KOP reached.  
Maximum dogleg  $2^\circ/100'$ .
3. At KOP follow Directional Drilling Plan. Maximum dog leg  $\approx 2^\circ/100'$ .

# Petral Exploration

Structure : #1 Knockdhu Federal

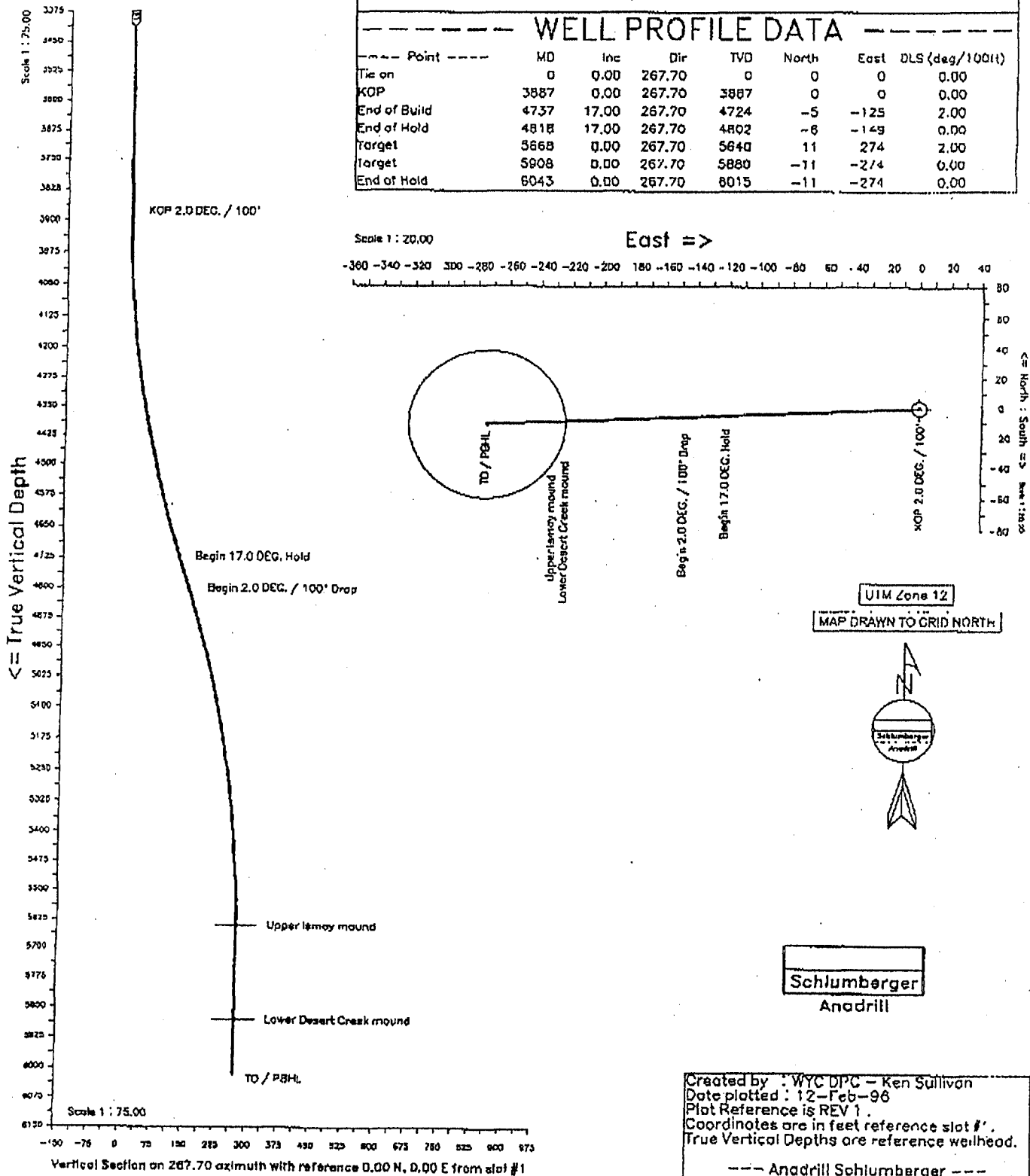
Well : #1

Field : San Juan County

Location : Utah

## WELL PROFILE DATA

Point	MD	Inc	Dir	TVD	North	East	DLS (deg/100ft)
Tie on	0	0.00	267.70	0	0	0	0.00
KOP	3887	0.00	267.70	3887	0	0	0.00
End of Build	4737	17.00	267.70	4724	-5	-125	2.00
End of Hold	4818	17.00	267.70	4802	-8	-149	0.00
Target	5668	0.00	267.70	5640	11	274	2.00
Target	5808	0.00	267.70	5880	-11	-274	0.00
End of Hold	6043	0.00	267.70	6015	-11	-274	0.00



Petral Exploration  
 #1 Knockdhu Federal, #1  
 San Juan County, Utah

PROPOSAL LISTING # 1  
 Your ref : REV 1  
 Last revised : 12-Feb-96

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert. Depth	RECTANGULAR COORDINATES			Dogleg Deg/100Ft	Vert Sect
0.00	0.00	267.70	0.00	0.00 N	0.00 E	0.00	0.00	0.00
500.00	0.00	267.70	500.00	0.00 N	0.00 E	0.00	0.00	0.00
1000.00	0.00	267.70	1000.00	0.00 N	0.00 E	0.00	0.00	0.00
1500.00	0.00	267.70	1500.00	0.00 N	0.00 E	0.00	0.00	0.00
2000.00	0.00	267.70	2000.00	0.00 N	0.00 E	0.00	0.00	0.00
2500.00	0.00	267.70	2500.00	0.00 N	0.00 E	0.00	0.00	0.00
3000.00	0.00	267.70	3000.00	0.00 N	0.00 E	0.00	0.00	0.00
3500.00	0.00	267.70	3500.00	0.00 N	0.00 E	0.00	0.00	0.00
3886.77	0.00	267.70	3886.77	0.00 N	0.00 E	0.00	0.00	0.00
3986.77	2.00	267.70	3986.75	0.07 S	1.74 W	2.00	1.75	KOP 2.0 DEG. / 100'
4086.77	4.00	267.70	4086.61	0.28 S	6.97 W	2.00	6.98	
4186.77	6.00	267.70	4186.22	0.63 S	15.68 W	2.00	15.69	
4286.77	8.00	267.70	4285.47	1.12 S	27.86 W	2.00	27.88	
4386.77	10.00	267.70	4384.24	1.75 S	43.49 W	2.00	43.52	
4486.77	12.00	267.70	4482.39	2.51 S	62.55 W	2.00	62.60	
4586.77	14.00	267.70	4579.83	3.41 S	85.03 W	2.00	85.10	
4686.77	16.00	267.70	4676.41	4.45 S	110.89 W	2.00	110.98	
4736.77	17.00	267.70	4724.35	5.02 S	125.08 W	2.00	125.18	Begin 17.0 DEG. Hold
4818.40	17.00	267.70	4802.42	5.98 S	148.92 W	0.00	149.04	
4818.41	17.00	267.70	4802.42	5.98 S	148.93 W	2.00	149.05	Begin 2.0 DEG. / 100' Drop
4868.40	16.00	267.70	4850.35	6.55 S	163.11 W	2.00	163.24	
4968.40	14.00	267.70	4946.94	7.59 S	188.97 W	2.00	189.12	
5068.40	12.00	267.70	5044.37	8.49 S	211.45 W	2.00	211.62	
5168.40	10.00	267.70	5142.53	9.25 S	230.51 W	2.00	230.70	
5268.40	8.00	267.70	5241.29	9.88 S	246.14 W	2.00	246.34	
5368.40	6.00	267.70	5340.54	10.37 S	258.32 W	2.00	258.53	
5468.40	4.00	267.70	5440.16	10.72 S	267.03 W	2.00	267.24	
5568.40	2.00	267.70	5540.01	10.93 S	272.26 W	2.00	272.48	
5668.40	0.00	267.70	5640.00	11.00 S	274.00 W	2.00	274.22	Upper Ismay mound
5908.40	0.00	267.70	5880.00	11.00 S	274.00 W	0.00	274.22	Lower Desert Creek mound
6000.00	0.00	267.70	5971.60	11.00 S	274.00 W	0.00	274.22	
6043.40	0.00	267.70	6015.00	11.00 S	274.00 W	0.00	274.22	TD / PPHL

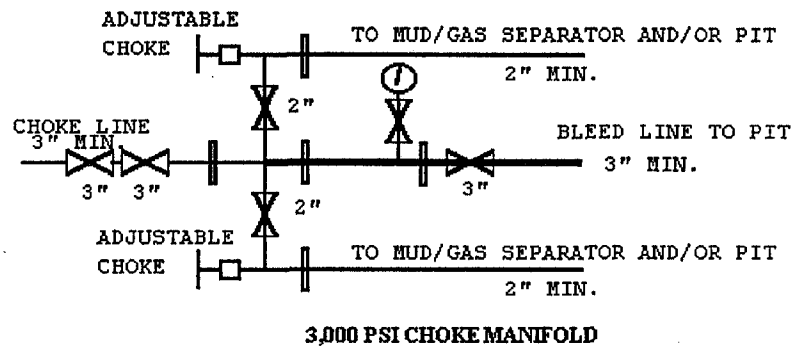
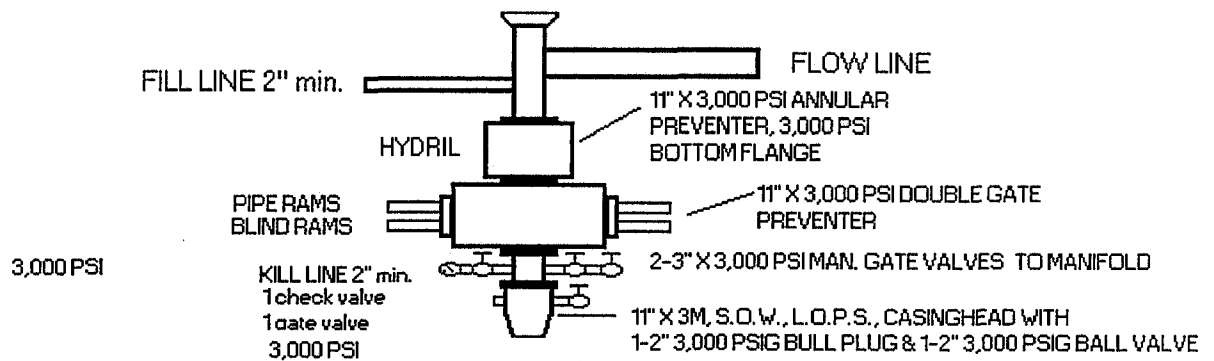
MD	TVD	Rectangular Coords.		Comment
3886.77	3886.77	0.00 N	0.00 E	KOP 2.0 DEG. / 100'
4736.77	4724.35	5.02 S	125.08 W	Begin 17.0 DEG. Hold
4818.41	4802.42	5.98 S	148.93 W	Begin 2.0 DEG. / 100' Drop
5668.40	5640.00	11.00 S	274.00 W	Upper Ismay mound
5908.40	5880.00	11.00 S	274.00 W	Lower Desert Creek mound
6043.40	6015.00	11.00 S	274.00 W	TD / PPHL

Targets associated with this wellpath

Target name	Position	T.V.D. Local rectangular coords. Date revised		
Lower Desert Creek m	2168801.000,13632351.000	5880.00	11.00S	274.00W 12-Feb-96
Upper Ismay mound	2168801.000,13632351.000	5640.00	11.00S	274.00W 12-Feb-96

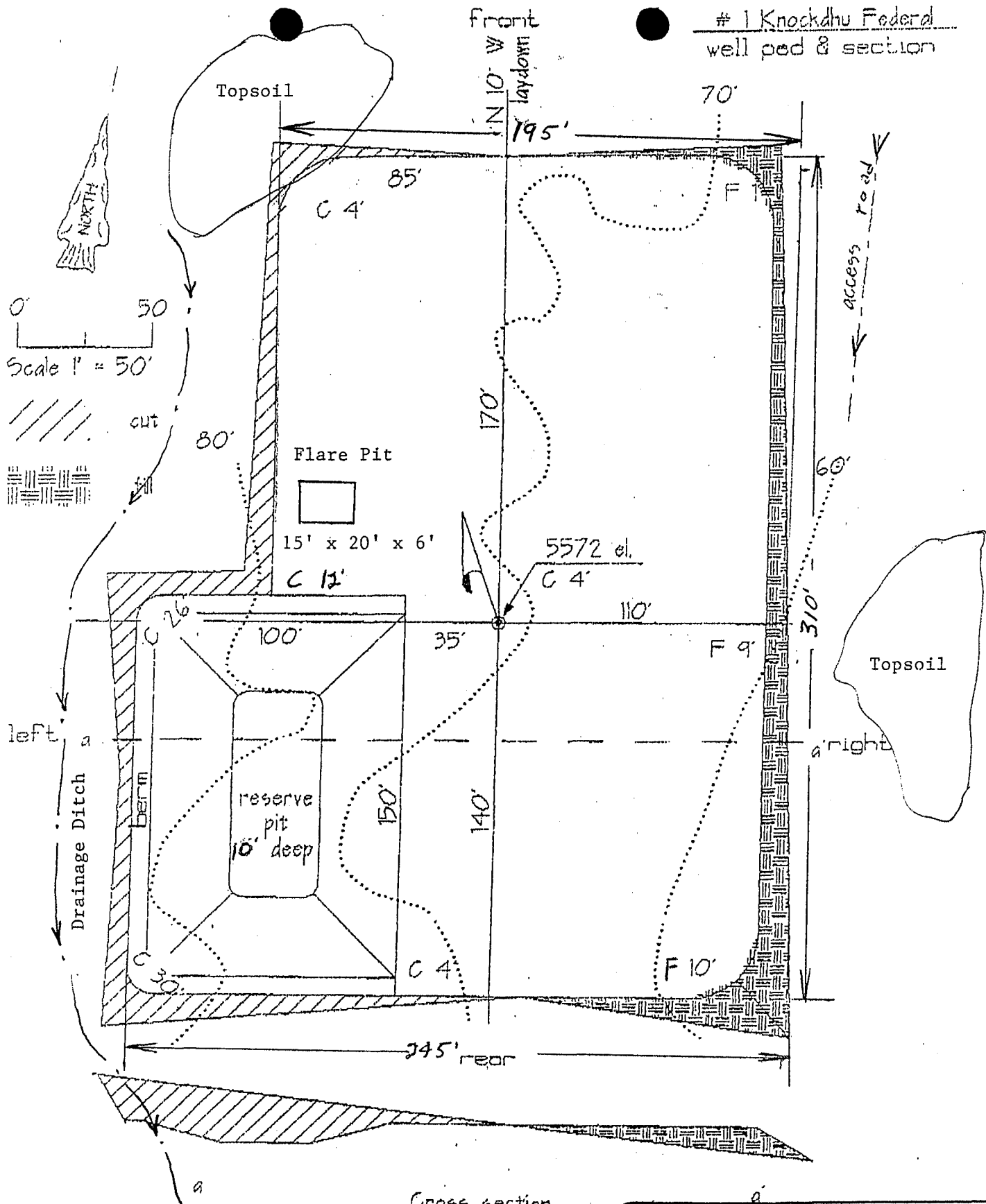
All data is in feet unless otherwise stated  
 Coordinates are from slot #1 and TVDs are from wellhead.  
 Vertical section is from wellhead on azimuth 267.70 degrees.  
 Calculation uses the minimum curvature method.

**BOP EQUIPMENT  
3,000 PSIG W.P.**







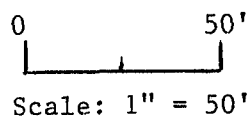


# DRILLING PAD & RESERVE PIT LAYOUT

Petral Exploration, LLC  
 #1 Knockdhu Unit  
 SW NW NE Sec. 33-T37S-R25E  
 San Juan Co., Utah  
 Fed. Lease UTU-18452A

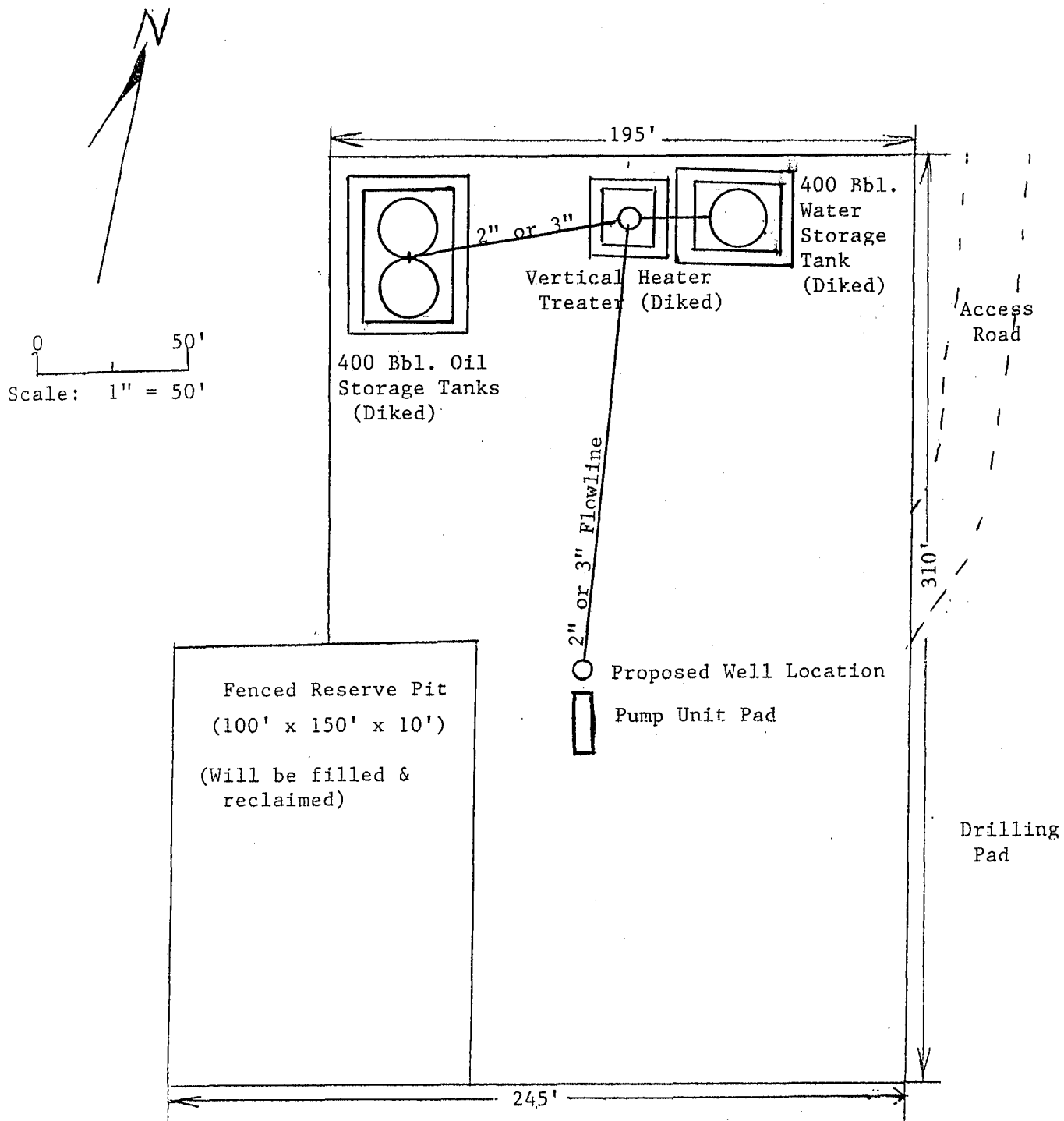
Figure 3





Petral Exploration, LLC  
#1 Knockdhu Unit  
SW NW NE Sec. 33-T37S-R25E  
San Juan Co., Utah  
Fed. Lease UTU-18452A

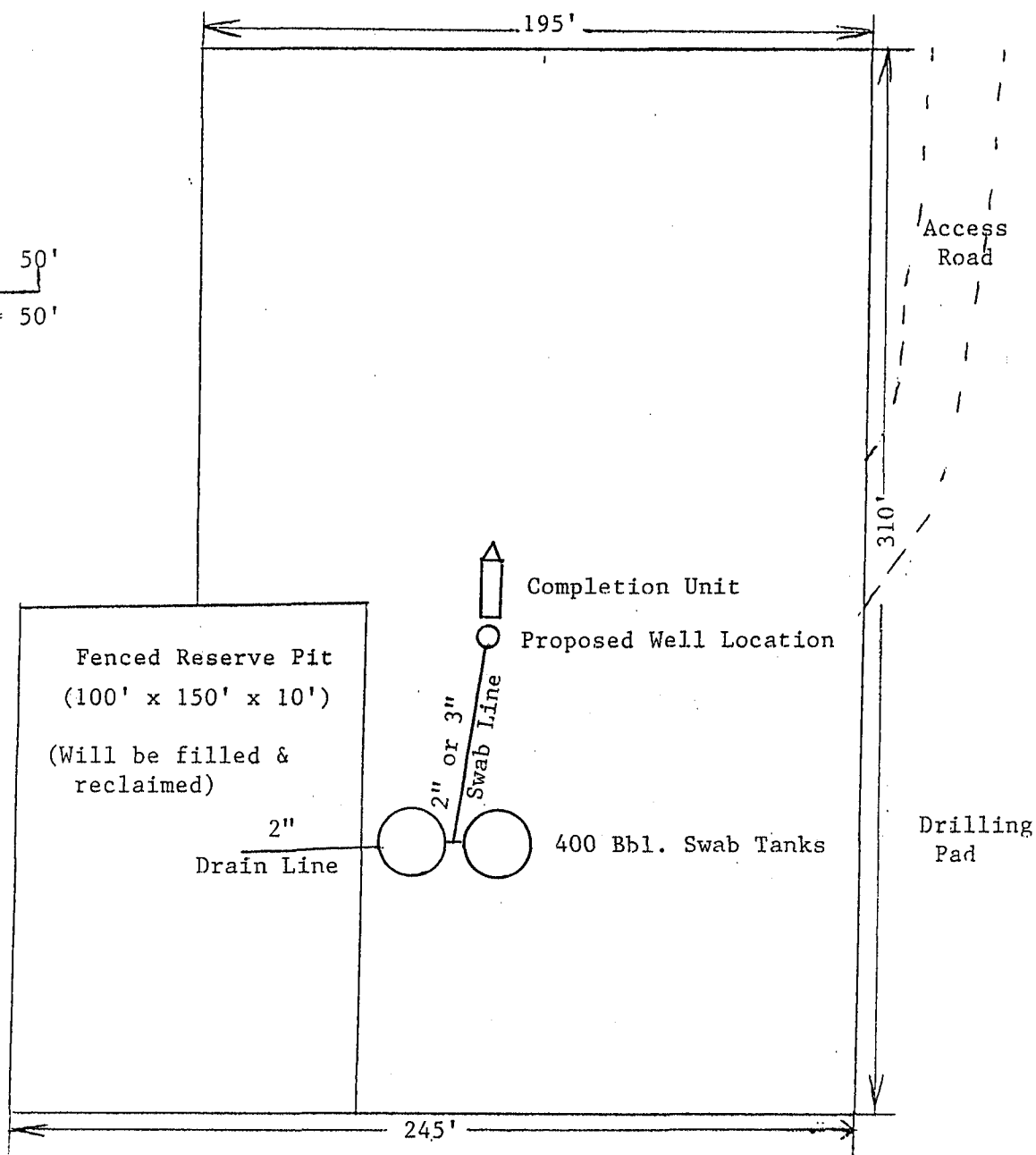
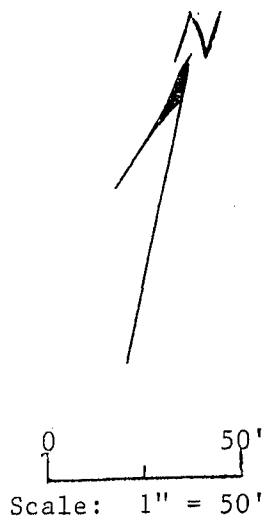
Figure 4



#### PRODUCTION FACILITIES

Petral Exploration, LLC  
 #1 Knockdhu Unit  
 SW NW NE Sec. 33-T37S-R25E  
 San Juan Co., Utah  
 Fed. Lease UTU-18452A

Figure 5



COMPLETION UNIT

Petral Exploration, LLC  
#1 Knockdhu Unit  
SW NW NE Sec. 33-T37S-R25E  
San Juan Co., Utah  
Fed. Lease UTU-18452A

Figure 6

ARCHAEOLOGICAL SURVEY OF  
PETRAL EXPLORATION COMPANY'S  
KNOCKDHU FED. #1 WELL PAD & ACCESS ROUTE  
SAN JUAN COUNTY, UTAH

4-CAS REPORT 9610

by  
Carol S. DeFrancia

4-CORNERS ARCHAEOLOGICAL SERVICES  
858 Oak St.  
Moab, Utah 84532  
(801) 259-2777

January 24, 1996

FEDERAL ANTIQUITIES PERMIT 95UT62712  
Utah State Permit No. U-96-FE-0039b

Prepared For:  
Petal Exploration  
1700 Lincoln, Suite 5000  
Denver, CO 80203

## TABLE OF CONTENTS

	page no.
Abstract .....	1
Introduction .....	1
Project Area .....	1
Physiography and Environment .....	4
Previous Research .....	5
Examination Procedures .....	5
Survey Results .....	5
Conclusion .....	5
References .....	5

## LIST OF FIGURES

Figure 1. General Vicinity of Project Area .....	2
Figure 2. Project Map .....	3

## ABSTRACT

The archaeological survey of Petral Exploration Company's Knockdhu Federal # 1 well pad and 1400' of access was conducted by personnel of 4-Corners Archaeological Services on January 23, 1996. The project is located in the vicinity of Little Nancy Canyon in San Juan County, Utah, approximately twenty miles southeast of the town of Blanding. A total of 14.8 acres were inventoried for cultural resources.

One previously documented archaeological site, 42SA22768, was found in the project area. Because the site lies well over 150' from the proposed access right-of-way, archaeological clearance is recommended.

## INTRODUCTION

The archaeological survey of Petral Exploration Company's proposed Knockdhu Federal #1 well pad and 1400' of access route was conducted by Carol DeFrancia of 4-Corners Archaeological Services on January 23, 1996. The project is located along a bench area above Little Nancy Canyon (Figure 1) on lands administered by the Bureau of Land Management, San Juan Resource Area Office, Monticello. The survey was requested by Mr. Ed McIlnay, of McIlnay & Associates, Inc. Huddleston Surveying personnel staked and flagged the well pad prior to the survey. The proposed access route extends northeast of the well location to an existing access road adjacent to Little Nancy Canyon. A total of 14.8 acres were inventoried for cultural resources.

Federal and state governments have enacted legislation that is designed to conserve and protect cultural resources. The principal federal legislation includes the Antiquities Act of 1906 (PL 52-209), the National Historic Preservation Act of 1966 (PL 89-665), the National Environmental Policy Act of 1969 (PL 91-190), the 1971 Executive Order No. 11593, the Archaeological and Historical Conservation Act of 1974 (PL 93-291), and the Archaeological Resource Protection Act (ARPA) of 1978 (PL 95-96).

One previously documented archaeological site, 42SA22768, was found in the project area. Because the site lies well over 150' from the proposed access right-of-way, archaeological clearance is recommended (Figure 2).

## PROJECT AREA

Map Reference: Bug Canyon, Utah 1985 (7.5' series)

Total Project Area: 3.4 acres; area surveyed 14.8 acres

### Knockdhu Federal # 1 Well Pad

Legal Description: T37S, R25E: Section 33

Center Stake: 1090' FNL, 2470' FEL (surface hole); T37S, R25E, Section 33

UTM Coordinates:		Easting	Northing
(Surveyed Area)	NW Corner	661020	4155250
	NE Corner	661225	4155250
	SE Corner	661225	4155080
	SW Corner	661020	4155080

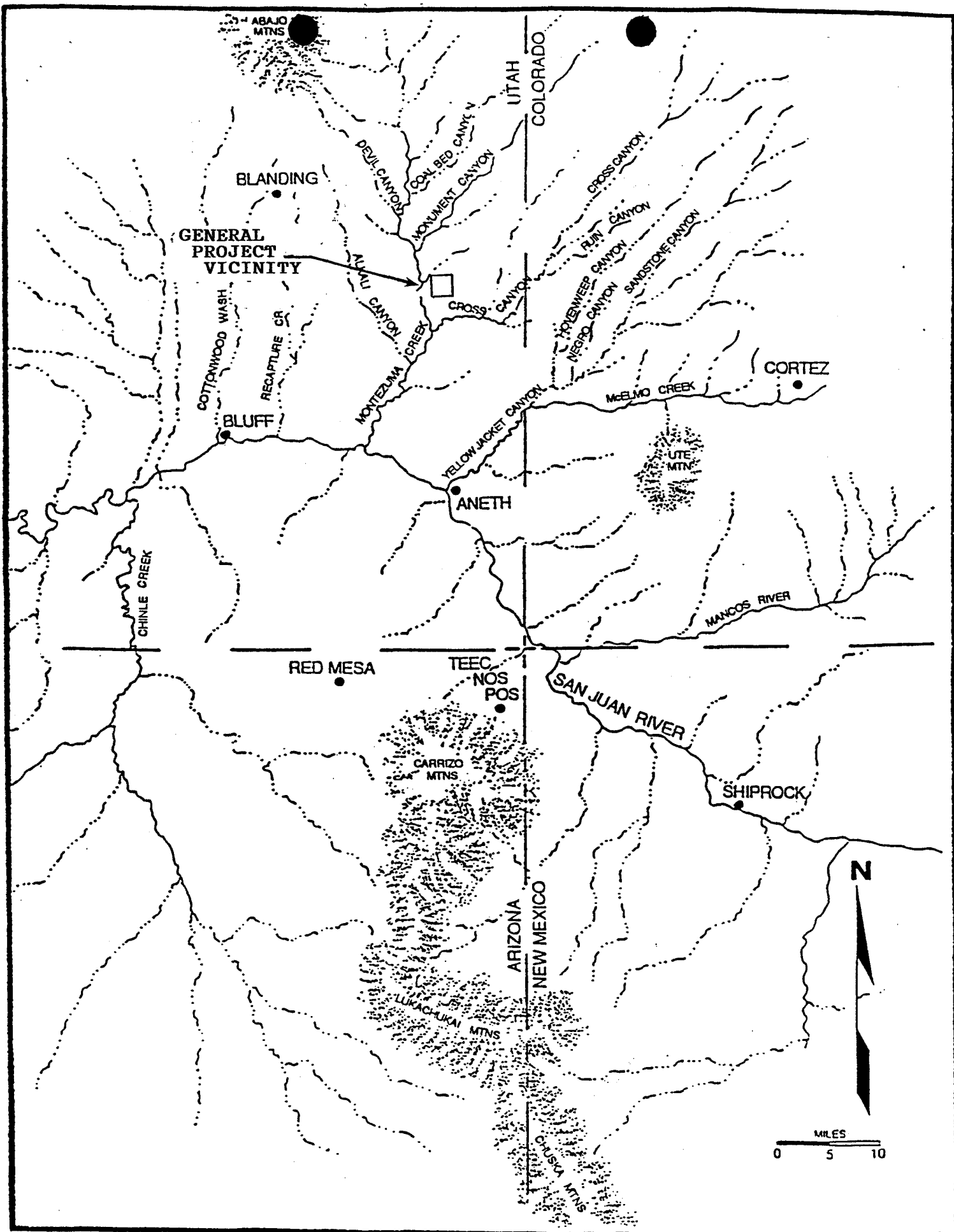
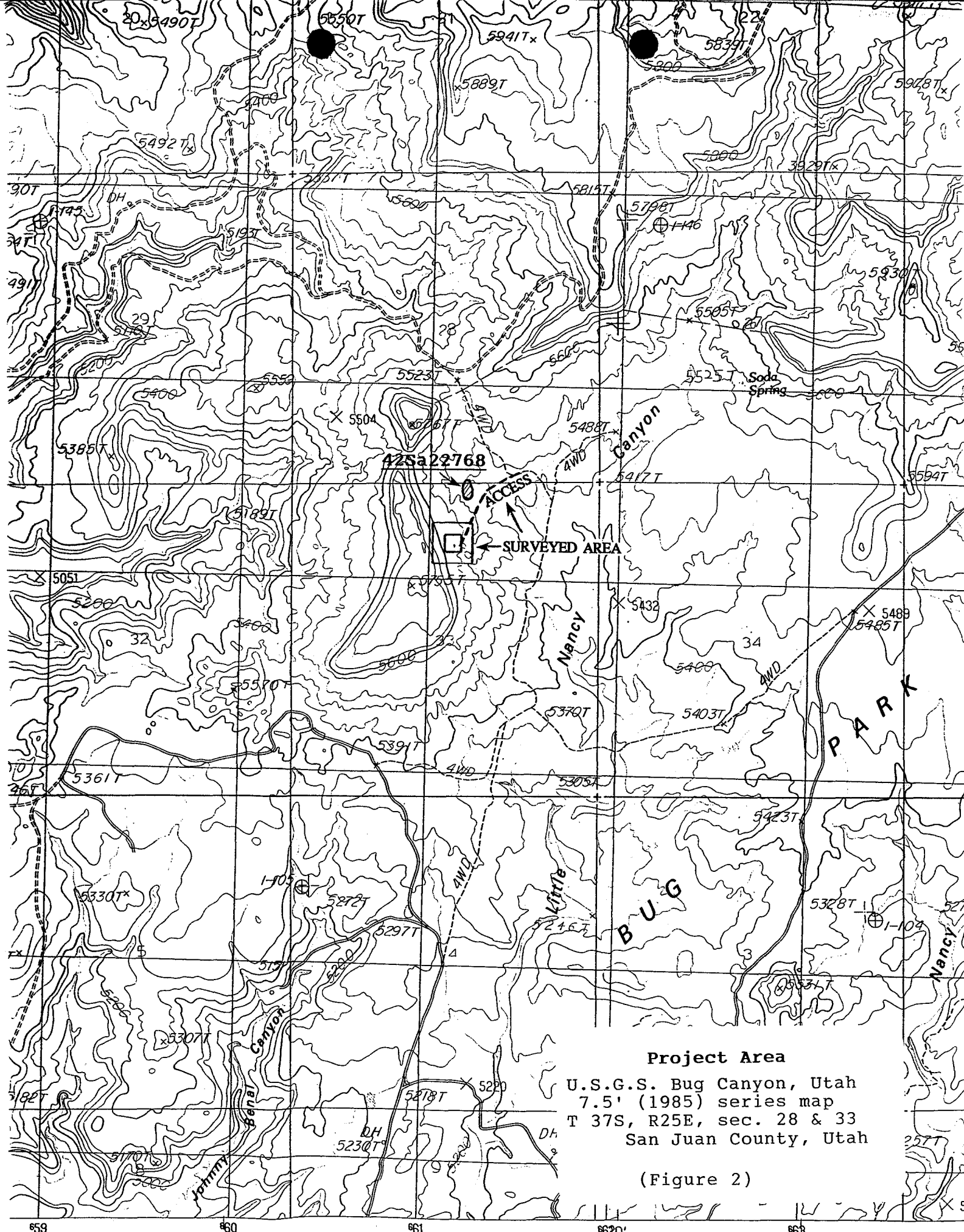


Figure 1. Project Area



**Project Area**  
U.S.G.S. Bug Canyon, Utah  
7.5' (1985) series map  
T 37S, R25E, sec. 28 & 33  
San Juan County, Utah

(Figure 2)

SCALE 1:24 000



Project Area: Well Pad 210 x 305'; (1.4 acres)

Surveyed Area: 660 x 660' (10 acres)

Results: No cultural resources found.

#### Well Pad Access

Legal Description: Section 33, T37S, R25E: NW, NE  
Section 28, T37S, R25E: SW, SE

UTM Coordinates:	Easting	Northing
SW End	661080	4155200
Bend	661300	4155480
NE End	661420	4155540

Project Area: 1400' long, maximum 60' wide (1.9 acres)

Surveyed Area: 1400' x 150' (4.8 acres)

Results: One previously documented archaeological site, 42SA22768, situated ca. 185' northwest of access route.

## **PHYSIOGRAPHY AND ENVIRONMENT**

The project area is located in San Juan County, Utah approximately twenty miles southeast of the town of Blanding, along the west side of Little Nancy Canyon. The area lies in the Colorado Plateau physiographic province and is a structural element of the Blanding Basin (Stokes 1977). The proposed well pad occupies a northeast-facing colluvial slope along a bench area above Little Nancy Canyon. The southeast edge of the pad lies adjacent to a significant ephemeral drainage. The proposed access route extends northeast across a rugged east-facing colluvial slope. Terrain in the area is moderately rugged and heavily dissected with aeolian and colluvial deposits along the canyon benches, cobble to boulder-sized colluvial deposits along canyon slopes, and sandy alluvium along the floodplain. Pockets of Morrison Formation clayey loams are exposed along the slopes above the canyon drainage.

Throughout the Blanding Basin are numerous sources of lithic materials for tool manufacture, outcrops of clay and iron minerals for ceramic construction and decoration, and an abundance of sandstone for construction materials important to the areas prehistory.

Vegetation on the canyon benches and slopes is predominately a pinyon-juniper woodland community with a cold desert shrub association consisting of shadscale, four-wing saltbush, euphedra, snakeweed, wolfberry, russian thistle, and indian ricegrass. A permanent water source in the area is Soda Spring, approximately one mile east of the location. Nancy Patterson Canyon, which lies approximately two miles east, holds water for several months throughout the late winter/spring season.

Reptilian, avian, and mammalian associations are consistent with those of the Upper Sonoran Life Zone throughout the Colorado Plateau.

Currently, most of the area is used for limited oil and gas development.

## **PREVIOUS RESEARCH**

A file search was conducted on January 23, 1996 at the BLM San Juan Resource Area Office in Monticello. The results of the review indicated that a number of oil and gas related surveys have been conducted in the vicinity between the late 1970's and 1980's, including one extensive 3-D seismic program that was recently conducted within the project area (JBR; 1995). The file search indicated that a few archaeological sites (5+) are documented in close proximity to the project area, predominately around Bug Park. One previously recorded site, 42SA22768, was encountered near the project area.

## **EXAMINATION PROCEDURES**

Prior to the field investigations the well pad and access were staked and flagged. A 660 x 660' area surrounding the well center stake (10 acres) was inventoried by walking a series of parallel transects spaced 15m apart. Two parallel zig-zag transects were walked along the access route, covering a 150' wide corridor. This effectively gives a minimal 60' buffer on either side of the access road.

## **SURVEY RESULTS**

One previously documented archaeological site, 42SA22768, was found in the project area. The site consists of a Pueblo II habitation that extends across a 40 x 85m area. The site is considered significant and eligible for a National Register listing.

## **CONCLUSION AND RECOMMENDATIONS**

The archaeological survey of Petral Exploration Company's Knockdhu Federal # 1 well pad and 1400' of access route was conducted by personnel of 4-Corners Archaeological Services on January 23, 1996. The project is located in San Juan County, Utah, on lands administered by the Bureau of Land Management, San Juan Resource Area, approximately twenty miles southeast of the town of Blanding. A total of 14.8 acres were inventoried for cultural resources.

One previously documented archaeological site, 42SA22768, was found in the project area. Because the site lies well over 150' from the proposed access right-of-way, archaeological clearance is recommended.

## **REFERENCES**

- Stokes, William Lee  
1987 Geology of Utah. Occasional Paper Number 6. Utah  
Museum of Natural History, University of Utah, Salt Lake City.

WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 02/15/96

API NO. ASSIGNED: 43-037-31773

WELL NAME: KNOCKDHU #1  
OPERATOR: PETRAL EXPLORATION LLC. (N7700)

PROPOSED LOCATION: 5  
NWNE 33 - T37S - R26E  
SURFACE: 1104-FNL-2473-FEL  
BOTTOM: 1114-FNL-2574-FWL  
SAN JUAN COUNTY  
WILDCAT FIELD (001)

LEASE TYPE: FED  
LEASE NUMBER: UTU - 18452 A

PROPOSED PRODUCING FORMATION: ISMAY

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering		
Geology		
Surface		

RECEIVED AND/OR REVIEWED:

☒ Plat  
☒ Bond: Federal ☒ State ☐ Fee ☐  
(Number UT 1040)  
☒ Potash (Y/N)  
☒ Oil shale (Y/N)  
☒ Water permit 09-169 water rights  
(Number WILL BE OBTAINED)  
☒ RDCC Review (Y/N)  
(Date: \_\_\_\_\_)

LOCATION AND SITING:

☒ R649-2-3. Unit: KNOCK DHU  
\_\_\_\_ R649-3-2. General.  
\_\_\_\_ R649-3-3. Exception.  
\_\_\_\_ Drilling Unit.  
\_\_\_\_ Board Cause no: \_\_\_\_\_  
\_\_\_\_ Date: \_\_\_\_\_

COMMENTS:

STIPULATIONS: 1. WATER PERMIT NO. WILL BE REQUIRED PRIOR  
TO SPUD.

Application No. T 19756  
T 19756



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor

Ted Stewart  
Executive Director

James W. Carter  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

March 5, 1996

Petral Exploration, LLC  
c/o McIlroy & Associates, Inc.  
2305 Oxford Lane  
Casper, Wyoming 84604

Re: Knockdhu #1 Well, 1104' FNL, 2473' FEL, NW NE, Sec. 33, T. 37 S., R. 25 E.,  
San Juan County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-037-31773.

Sincerely,

R. J. Firth  
Associate Director

lwp

Enclosures

cc: San Juan County Assessor

Bureau of Land Management, Moab District Office

WAPD



Operator: Petral Exploration, LLC  
Well Name & Number: Knockdhu #1  
API Number: 43-037-31773  
Lease: UTU-18452 A  
Location: NW NE Sec. 33 T. 37 S. R. 25 E.

### Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements

Notify the Division within 24 hours following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5340.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews or Mike Hebertson at (801)538-5340.

3. Reporting Requirements

All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.



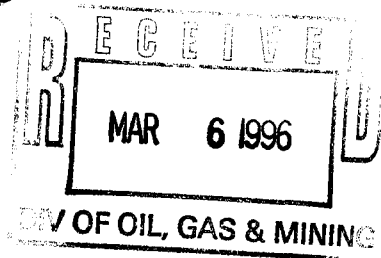
State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF WATER RIGHTS

Michael O. Leavitt  
Governor

Ted Stewart  
Executive Director

Robert L. Morgan  
State Engineer

Southeastern Area  
453 South Carbon Avenue  
P.O. Box 718  
Price, Utah 84501-0718  
801-637-1303



February 23, 1996

*Knockdown  
File*

R.W. Trucking  
P.O. Box 1208  
Cortez, Colorado 81321

Re: Temporary Change Application Number t19756 (09-169)  
Expiration Date: December 31, 1996

Dear Applicant:

The above referenced Temporary Change Application is hereby approved. A copy is enclosed for your information and records.

If you have any questions, please feel free to contact me.

Sincerely,

Mark P. Page  
Regional Engineer

Enclosures  
MPP/mjk



# APPLICATION FOR TEMPORARY CHANGE OF WATER

STATE OF UTAH

RECEIVED

Rec. by \_\_\_\_\_

Fee Paid \$ \_\_\_\_\_

Receipt # \_\_\_\_\_

Microfilmed \_\_\_\_\_

Roll # \_\_\_\_\_

For the purpose of obtaining permission to make a temporary change of water in the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of Section 73-3-3 Utah Code Annotated 1953, as amended.

\*WATER RIGHT NO. 09 - 169

\*APPLICATION NO. t 19756

Changes are proposed in (check those applicable)

\_\_\_\_\_ point of diversion. ☒ \_\_\_\_\_ place of use. ☒ \_\_\_\_\_ nature of use. ☒ \_\_\_\_\_ period of use.

## 1. OWNER INFORMATION

Name: R.W. Trucking

\*Interest: \_\_\_\_\_%

Address: P.O. Box 1208

City: Cortez

State: Colorado

Zip Code: 81321

2. \*PRIORITY OF CHANGE: May 5, 1953

\*FILING DATE: February 23, 1996

3. RIGHT EVIDENCED BY: 09-169 (A24863) Cert. No. 6249

Prior Approved Temporary Change Applications for this right: 84-09-13; 88-09-01; 88-09-02; 91-09-03;  
t18235

\*\*\*\*\* HERETOFORE \*\*\*\*\*

4. QUANTITY OF WATER: 1.199 cfs and/or \_\_\_\_\_ ac-ft.

5. SOURCE: Underground Water Well

6. COUNTY: San Juan

7. POINT(S) OF DIVERSION: 1) N. 2350 ft. & W. 444 ft. from SE Cor. Sec. 12, T38S, R24E, SLB&M;

2) N. 1946 ft. & E. 1152 ft.;

3) N. 1651 ft. & E. 2236 ft.;

4) N. 917 ft. & E. 2414 ft.; all from SW Cor. Sec. 7, T38S, R25E, SLB&M

Description of Diverting Works: \_\_\_\_\_

## 8. POINT(S) OF REDIVERSION

The water has been rediverted from \_\_\_\_\_ at a point: \_\_\_\_\_

Description of Diverting Works: \_\_\_\_\_

## 9. POINT(S) OF RETURN

The amount of water consumed is 1.199 cfs or \_\_\_\_\_ ac-ft.

The amount of water returned is \_\_\_\_\_ cfs or \_\_\_\_\_ ac-ft.

The water has been returned to the natural stream/source at a point(s): \_\_\_\_\_

\*These items are to be completed by the Division of Water Rights.

Temporary Change

20. NATURE AND PERIOD OF USE

Irrigation: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Stockwatering: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Domestic: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Municipal: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Mining: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Power: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Other: From 3 / 1 / 96 to 12 / 31 / 96

21. PURPOSE AND EXTENT OF USE

Irrigation: \_\_\_\_\_ acres. Sole supply of \_\_\_\_\_ acres.  
Stockwatering (number and kind): \_\_\_\_\_  
Domestic: \_\_\_\_\_ Families and/or \_\_\_\_\_ Persons.  
Municipal (name): \_\_\_\_\_  
Mining: \_\_\_\_\_ Mining District at the \_\_\_\_\_ Mine.  
Ores mined: \_\_\_\_\_  
Power: Plant name: \_\_\_\_\_ Type: \_\_\_\_\_ Capacity: \_\_\_\_\_  
Other (describe): Exploration drilling, road construction & maintenance, and other  
related uses.

22. PLACE OF USE

Legal description of place of use by 40 acre tract(s): \_\_\_\_\_  
1) Petral Fed. Aultmore #1 SE $\frac{1}{4}$  Sec. 24, T37S, R24E, SLB&M;  
2) Petral Fed. Knockdhu #1 NW $\frac{1}{4}$ NE $\frac{1}{4}$  Sec. 33, T37S, R25E, SLB&M;  
3) Petral Fed. Knockando #1 NW $\frac{1}{4}$  Sec. 19, T37S, R25E, SLB&M.

23. STORAGE

Reservoir Name: \_\_\_\_\_ Storage Period: from \_\_\_\_\_ to \_\_\_\_\_  
Capacity: \_\_\_\_\_ ac-ft. Inundated Area: \_\_\_\_\_ acres.  
Height of dam: \_\_\_\_\_ feet.  
Legal description of inundated area by 40 tract(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

24. EXPLANATORY

The following is set forth to define more clearly the full purpose of this application. Include any supplemental water rights used for the same purpose. (Use additional pages of same size if necessary): \_\_\_\_\_  
The applicant is purchasing this water from the owner of the right, Richard Perkins,  
of Blanding. A letter of consent is attached.  
\_\_\_\_\_  
\_\_\_\_\_

\*\*\*\*\*

The undersigned hereby acknowledges that even though he/she/they may have been assisted in the preparation of the above-numbered application through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained herein, at the time of filing, rests with the applicant(s).

Robert D. McDonald  
Signature of Applicant(s)



STATE ENGINEER'S ENDORSEMENT

TEMPORARY CHANGE APPLICATION NUMBER: t19756

WATER RIGHT NUMBER: 09-169

1. February 23, 1996 Change Application received.
2. February 23, 1996 Application designated for APPROVAL by MP.
3. Comments:

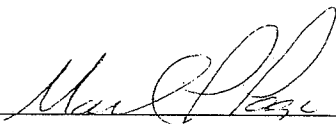
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Conditions:

This application is hereby APPROVED, dated February 23, 1996, subject to prior rights and this application will expire on December 31, 1996.



---

Mark Page, Regional Engineer  
for  
Robert L. Morgan, State Engineer

Blanding Utah

Jan 30 1996

RECEIVED

FEB 23 1996

WATER DIVISION

BLANDING

State of Utah  
Natural Resources

Dear Sir

I have given R. W.  
trackings of Cortez Co. permission  
to use the water at my  
montezuma sand. for drilling

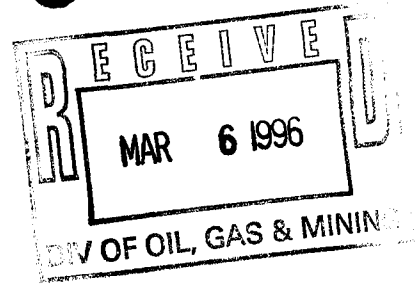
Yours truly  
Richard Perkins



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF WATER RIGHTS

Michael O. Leavitt  
Governor  
Ted Stewart  
Executive Director  
Robert L. Morgan  
State Engineer

Southeastern Area  
453 South Carbon Avenue  
P.O. Box 718  
Price, Utah 84501-0718  
801-637-1303



March 4, 1996

R.W. Trucking  
P.O. Box 1208  
Cortez, Colorado 81321

Re: Temporary Change Application Number t19778 (09-156)  
Expiration Date: December 31, 1996

Dear Applicant:

The above referenced Temporary Change Application is hereby approved. A copy is enclosed for your information and records.

If you have any questions, please feel free to contact me.

Sincerely,

Mark P. Page  
Regional Engineer

cc: Frank Matthews - Division of Oil, Gas & Mining

Enclosures  
MPP/mjk



# APPLICATION FOR TEMPORARY CHANGE OF WATER

STATE OF UTAH

RECEIVED

Rec. by \_\_\_\_\_

Fee Paid \$ \_\_\_\_\_

Receipt # \_\_\_\_\_

Microfilmed \_\_\_\_\_

Roll # \_\_\_\_\_

For the purpose of obtaining permission to make a temporary change of water in the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of Section 73-3-3 Utah Code Annotated 1953, as amended.

\*WATER RIGHT NO. 09 - 156 \*APPLICATION NO. t19778

Changes are proposed in (check those applicable)

\_\_\_\_\_ point of diversion. ☒ place of use. ☒ nature of use. ☒ period of use.

## 1. OWNER INFORMATION

Name: R.W. Trucking \*Interest: \_\_\_\_\_%

Address: P.O. Box 1208

City: Cortez State: Colorado Zip Code: 81321

2. \*PRIORITY OF CHANGE: December 10, 1951 \*FILING DATE: March 4, 1996

3. RIGHT EVIDENCED BY: 09-156 (A23462; a5076) Cert. No. 7854

Prior Approved Temporary Change Applications for this right: \_\_\_\_\_

\*\*\*\*\* HERETOFORE \*\*\*\*\*

4. QUANTITY OF WATER: 0.364 cfs and/or \_\_\_\_\_ ac-ft.

5. SOURCE: Underground Water Well

6. COUNTY: San Juan

7. POINT(S) OF DIVERSION: \_\_\_\_\_

N. 531 ft. & E. 1810 ft. from W $\frac{1}{4}$  Cor. Sec. 1, T38S, R24E, SLB&M

Description of Diverting Works: 4-inch casing, 538 feet deep

## 8. POINT(S) OF REDIVERSION

The water has been rediverted from \_\_\_\_\_ at a point: \_\_\_\_\_

Description of Diverting Works: \_\_\_\_\_

## 9. POINT(S) OF RETURN

The amount of water consumed is 0.364 cfs or \_\_\_\_\_ ac-ft.

The amount of water returned is \_\_\_\_\_ cfs or \_\_\_\_\_ ac-ft.

The water has been returned to the natural stream/source at a point(s): \_\_\_\_\_

\*These items are to be completed by the Division of Water Rights.

Temporary Change

20. NATURE AND PERIOD OF USE

Irrigation: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Stockwatering: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Domestic: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Municipal: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Mining: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Power: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Other: From 3 / 1 / 96 to 12 / 31 / 96

21. PURPOSE AND EXTENT OF USE

Irrigation: \_\_\_\_\_ acres. Sole supply of \_\_\_\_\_ acres.  
Stockwatering (number and kind): \_\_\_\_\_  
Domestic: \_\_\_\_\_ Families and/or \_\_\_\_\_ Persons.  
Municipal (name): \_\_\_\_\_  
Mining: \_\_\_\_\_ Mining District at the \_\_\_\_\_ Mine.  
Ores mined: \_\_\_\_\_  
Power: Plant name: \_\_\_\_\_ Type: \_\_\_\_\_ Capacity: \_\_\_\_\_  
Other (describe): Exploration drilling, road construction & maintenance, dust suppression

22. PLACE OF USE

Legal description of place of use by 40 acre tract(s): \_\_\_\_\_  
1) Petral Fed. Aultmore #1: SE $\frac{1}{4}$  Sec. 24, T37S, R24E, SLB&M  
2) Petral Fed. Knockando #1: NW $\frac{1}{4}$  Sec. 19, T37S, R25E, SLB&M

23. STORAGE

Reservoir Name: \_\_\_\_\_ Storage Period: from \_\_\_\_\_ to \_\_\_\_\_  
Capacity: \_\_\_\_\_ ac-ft. Inundated Area: \_\_\_\_\_ acres.  
Height of dam: \_\_\_\_\_ feet.  
Legal description of inundated area by 40 tract(s): \_\_\_\_\_

24. EXPLANATORY

The following is set forth to define more clearly the full purpose of this application. Include any supplemental water rights used for the same purpose. (Use additional pages of same size if necessary): \_\_\_\_\_  
The applicant is purchasing the water from the water right owner, Mr. Richard Gore.  
See attached letter.

\*\*\*\*\*

The undersigned hereby acknowledges that even though he/she/they may have been assisted in the preparation of the above-numbered application through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained herein, at the time of filing, rests with the applicant(s).

Robert A. McDonald  
Signature of Applicant(s)

STATE ENGINEER'S ENDORSEMENT

TEMPORARY CHANGE APPLICATION NUMBER: t19778

WATER RIGHT NUMBER: 09-156

1. March 4, 1996            Change Application received.
2. March 4, 1996            Application designated for APPROVAL by MP.
3. Comments:

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Conditions:

This application is hereby APPROVED, dated March 4, 1996, subject to prior rights and this application will expire on December 31, 1996.



---

Mark Page, Regional Engineer  
for  
Robert L. Morgan, State Engineer

TO: R.W. Trucking

P.O. Box 1208

Cortez, Colorado 81321

From: Richard W. Gore

Josephine M. Gore

Thank you for sending the description of the Point of Diversion for the well on our property in Utah.

You have our permission to use well water from the underground well in San Juan County, Utah.

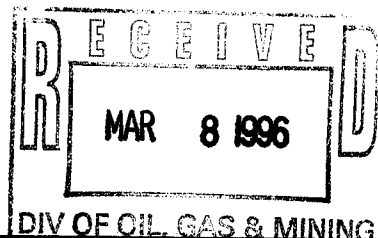
N. 531 ft. & E. 1810 ft. from W $\frac{1}{4}$  Cor. Sec. 1, T38S, R24E, SLB&M

If further information is needed, I will be staying at the cabin near the well in Utah.

Sincerely,

A handwritten signature in cursive script that reads "Richard W. Gore". The signature is written in dark ink and is positioned below the word "Sincerely,".

Richard W. Gore



# McILNAY & ASSOCIATES, INC.

**McILNAY**

2305 OXFORD LANE • CASPER, WY 82604 • (307) 265-4351 • FAX (307) 473-1218

PETROLEUM CONSULTING ENGINEERS & PROPERTY MANAGEMENT

REGISTERED PROFESSIONAL ENGINEERS

March 5, 1996

Mr. Frank Matthews  
Utah Board of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Re: Water Permit for Petral Exploration, LLC, #1 Knockdhu Unit  
Sec. 33-T37S-R25E San Juan County, Utah *43-037-31773*

Dear Mr. Frank Matthews:

As per your conversation with Mr. McNay this date, I am enclosing a copy of the approved Application For Temporary Change of Water from the State of Utah.

If you need anything additional, please let me know.

Sincerely,

McILNAY & ASSOCIATES, INC.

Sharon Orr

so

Attachment







State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF WATER RIGHTS

Michael O. Leavitt  
Governor

Ted Stewart  
Executive Director

Robert L. Morgan  
State Engineer

Southeastern Area  
453 South Carbon Avenue  
P.O. Box 718  
Price, Utah 84501-0718  
801-637-1303

February 23, 1996

R.W. Trucking  
P.O. Box 1208  
Cortez, Colorado 81321

Re: Temporary Change Application Number t19756 (09-169)  
Expiration Date: December 31, 1996

Dear Applicant:

The above referenced Temporary Change Application is hereby approved. A copy is enclosed for your information and records.

If you have any questions, please feel free to contact me.

Sincerely,

Mark P. Page  
Regional Engineer

Enclosures  
MPP/mjk



# APPLICATION FOR TEMPORARY CHANGE OF WATER

STATE OF UTAH

RECEIVED

Rec. by

Fee Paid \$

Receipt #

Microfilmed

Roll #

For the purpose of obtaining permission to make a temporary change of water in the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of Section 73-3-3 Utah Code Annotated 1953, as amended.

\*WATER RIGHT NO. 09 - 169 \*APPLICATION NO. t19756

Changes are proposed in (check those applicable)

\_\_\_\_\_ point of diversion. X place of use. X nature of use. X period of use.

## 1. OWNER INFORMATION

Name: R.W. Trucking \*Interest: \_\_\_\_\_%

Address: P.O. Box 1208

City: Cortez State: Colorado Zip Code: 81321

2. \*PRIORITY OF CHANGE: May 5, 1953 \*FILING DATE: February 23, 1996

3. RIGHT EVIDENCED BY: 09-169 (A24863) Cert. No. 6249

Prior Approved Temporary Change Applications for this right: 84-09-13; 88-09-01; 88-09-02; 91-09-03;  
t18235

\*\*\*\*\* HERETOFORE \*\*\*\*\*

4. QUANTITY OF WATER: 1.199 cfs and/or \_\_\_\_\_ ac-ft.

5. SOURCE: Underground Water Well

6. COUNTY: San Juan

7. POINT(S) OF DIVERSION: 1) N. 2350 ft. & W. 444 ft. from SE Cor. Sec. 12, T38S, R24E, SLB&M;

2) N. 1946 ft. & E. 1152 ft.;

3) N. 1651 ft. & E. 2236 ft.;

4) N. 917 ft. & E. 2414 ft.; all from SW Cor. Sec. 7, T38S, R25E, SLB&M

Description of Diverting Works: \_\_\_\_\_

## 8. POINT(S) OF REDIVERSION

The water has been rediverted from \_\_\_\_\_ at a point: \_\_\_\_\_

Description of Diverting Works: \_\_\_\_\_

## 9. POINT(S) OF RETURN

The amount of water consumed is 1.199 cfs or \_\_\_\_\_ ac-ft.

The amount of water returned is \_\_\_\_\_ cfs or \_\_\_\_\_ ac-ft.

The water has been returned to the natural stream/source at a point(s): \_\_\_\_\_

\*These items are to be completed by the Division of Water Rights.

Temporary Change

10. NATURE AND PERIOD OF

Irrigation: From March 1 to October 31  
 Stockwatering: From January 1 to December 31  
 Domestic: From \_\_\_\_\_ to \_\_\_\_\_  
 Municipal: From \_\_\_\_\_ to \_\_\_\_\_  
 Mining: From \_\_\_\_\_ to \_\_\_\_\_  
 Power: From \_\_\_\_\_ to \_\_\_\_\_  
 Other: From \_\_\_\_\_ to \_\_\_\_\_

11. PURPOSE AND EXTENT OF USE

Irrigation: 136.0 acres. Sole supply of \_\_\_\_\_ acres.  
 Stockwatering (number and kind): 2000 Sheep, 56 Cows, 7 Horses  
 Domestic: \_\_\_\_\_ Families and/or \_\_\_\_\_ Persons.  
 Municipal (name): \_\_\_\_\_  
 Mining: \_\_\_\_\_ Mining District in the \_\_\_\_\_ Mine.  
 Ores mined: \_\_\_\_\_  
 Power: Plant name: \_\_\_\_\_ Type: \_\_\_\_\_ Capacity: \_\_\_\_\_  
 Other (describe): \_\_\_\_\_

12. PLACE OF USE

Legal description of place of use by 40 acre tract(s):  
E $\frac{1}{2}$ SE $\frac{1}{4}$  Sec. 12; E $\frac{1}{2}$ NE $\frac{1}{4}$  Sec. 13; both T38S, R24E, SLB&M;  
SW $\frac{1}{4}$  Sec. 7; NW $\frac{1}{4}$  Sec. 18; both T38S, R25E, SLB&M.

13. STORAGE

Reservoir Name: \_\_\_\_\_ Storage Period: from \_\_\_\_\_ to \_\_\_\_\_  
 Capacity: \_\_\_\_\_ ac-ft. Inundated Area: \_\_\_\_\_ acres.  
 Height of dam: \_\_\_\_\_ feet.  
 Legal description of inundated area by 40 tract(s): \_\_\_\_\_

\*\*\*\*\* THE FOLLOWING CHANGES ARE PROPOSED \*\*\*\*\*

14. QUANTITY OF WATER: \_\_\_\_\_ cfs and/or 5.00 ac-ft.  
 15. SOURCE: Underground Water Well  
 Balance of the water will be abandoned: \_\_\_\_\_, or will be used as heretofore: X  
 16. COUNTY: San Juan  
 17. POINT(S) OF DIVERSION: Same as heretofore

Description of Diverting Works: Portable pump & tank truck  
 \*COMMON DESCRIPTION: 17 miles SE of Blanding Blanding South Quad

18. POINT(S) OF REDIVERSION

The water will be rediverted from \_\_\_\_\_ at a point: \_\_\_\_\_

Description of Diverting Works: \_\_\_\_\_

19. POINT(S) OF RETURN

The amount of water to be consumed is \_\_\_\_\_ cfs or 5.00 ac-ft.  
 The amount of water to be returned is \_\_\_\_\_ cfs or \_\_\_\_\_ ac-ft.  
 The water will be returned to the natural stream/source at a point(s): \_\_\_\_\_

20. NATURE AND PERIOD OF USE

Irrigation: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Stockwatering: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Domestic: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Municipal: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Mining: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Power: From \_\_\_/\_\_\_/\_\_\_ to \_\_\_/\_\_\_/\_\_\_  
Other: From 3 / 1 / 96 to 12 / 31 / 96

21. PURPOSE AND EXTENT OF USE

Irrigation: \_\_\_\_\_ acres. Sole supply of \_\_\_\_\_ acres.  
Stockwatering (number and kind): \_\_\_\_\_  
Domestic: \_\_\_\_\_ Families and/or \_\_\_\_\_ Persons.  
Municipal (name): \_\_\_\_\_  
Mining: \_\_\_\_\_ Mining District at the \_\_\_\_\_ Mine.  
Ores mined: \_\_\_\_\_  
Power: Plant name: \_\_\_\_\_ Type: \_\_\_\_\_ Capacity: \_\_\_\_\_  
Other (describe): Exploration drilling, road construction & maintenance, and other  
related uses.

22. PLACE OF USE

Legal description of place of use by 40 acre tract(s): \_\_\_\_\_  
1) Petral Fed. Aultmore #1 SE $\frac{1}{4}$  Sec. 24, T37S, R24E, SLB&M;  
2) Petral Fed. Knockdhu #1 NW $\frac{1}{4}$ NE $\frac{1}{4}$  Sec. 33, T37S, R25E, SLB&M;  
3) Petral Fed. Knockando #1 NW $\frac{1}{4}$  Sec. 19, T37S, R25E, SLB&M.

23. STORAGE

Reservoir Name: \_\_\_\_\_ Storage Period: from \_\_\_\_\_ to \_\_\_\_\_  
Capacity: \_\_\_\_\_ ac-ft. Inundated Area: \_\_\_\_\_ acres.  
Height of dam: \_\_\_\_\_ feet.  
Legal description of inundated area by 40 tract(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

24. EXPLANATORY

The following is set forth to define more clearly the full purpose of this application. Include any supplemental water rights used for the same purpose. (Use additional pages of same size if necessary): \_\_\_\_\_  
The applicant is purchasing this water from the owner of the right, Richard Perkins,  
of Blanding. A letter of consent is attached.  
\_\_\_\_\_  
\_\_\_\_\_

\*\*\*\*\*

The undersigned hereby acknowledges that even though he/she/they may have been assisted in the preparation of the above-numbered application through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained herein, at the time of filing, rests with the applicant(s).

Robert D. McDonald  
Signature of Applicant(s)

STATE ENGINEER'S ENDORSEMENT

TEMPORARY CHANGE APPLICATION NUMBER: t19756

WATER RIGHT NUMBER: 09-169

1. February 23, 1996 Change Application received.
2. February 23, 1996 Application designated for APPROVAL by MP.
3. Comments:

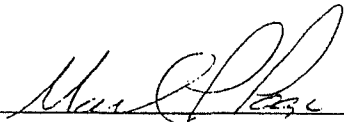
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Conditions:

This application is hereby APPROVED, dated February 23, 1996, subject to prior rights and this application will expire on December 31, 1996.



---

Mark Page, Regional Engineer  
for  
Robert L. Morgan, State Engineer

Blanding Utah

RECEIVED

Jan 30 1996

FEB 23 1996

WATER DIVISION

State of Utah  
Natural Resources

Dear Sir

I have given R. W.  
Truckins of Cortez Co. permission  
to use the water at my  
Montezuma ranch. for drilling

Yours truly  
Richard Perkins

RECEIVED  
MAR - 8 1996  
SUBMIT IN TRIPLICATE\*  
per instructions on  
reverse side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. Federal UTU 18452 A
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME NA
2. NAME OF OPERATOR Petrar Exploration, LLC		7. UNIT AGREEMENT NAME Knockdhu Unit (UTU 75040X)
3. ADDRESS OF OPERATOR c/o McIlnay & Associates, Inc. 2305 Oxford Lane, Casper, WY 82604		8. FARM OR LEASE NAME Knockdhu
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1104' FNL & 2473' FEL Sec. 33-T37S-R25E (SW NW NE) At proposed prod. zone 1114' FNL & 2574' FWL Sec. 33-T37S-R25E (SE NE NW)		9. WELL NO. #1
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 18 miles SE of Blanding, Utah		10. FIELD AND POOL, OR WILDCAT Wildcat
10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 74' Lease 1114' Unit	16. NO. OF ACRES IN LEASE 300 Lease--600 Unit	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 33-T37S-R25E
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 4000'	19. PROPOSED DEPTH	12. COUNTY OR PARISH 13. STATE San Juan UT
21. ELEVATIONS (Show whether DF, RT, GR, etc.)		17. NO. OF ACRES ASSIGNED TO THIS WELL
23		20. ROTARY OR CABLE TOOLS Rotary
		22. APPROX. DATE WORK WILL START* March 1, 1996

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
--------------	----------------	-----------------	---------------	--------------------

conduct lease operations in conjunction with the application. Bond coverage pursuant to 43 CFR 3104 for lease activities is provided by BLM bond NO. UT 1040.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. Dianne Shoyer Petraro Corporation, Manager  
SIGNED Dianne Shoyer TITLE Dianne Shoyer, Vice President DATE February 13, 1996

(This space for Federal or State office use)

PERMIT NO. 43-037-31773 APPROVAL DATE MAR 4 1996  
APPROVED BY 161 Bradd. Palmer Assistant District Manager  
CONDITIONS OF APPROVAL, IF ANY: TITLE Resource Management DATE

55111

CONDITIONS OF APPROVAL ATTACHED

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

**SUBMIT IN TRIPLICATE**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Petral Exploration LLC

3. Address and Telephone No.

1700 Lincoln St., Suite 5000, Denver, Colorado 80202

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1135 FNL & 2530 FWL of Section 33, T. 37S., R. 25 E.  
San Juan County, Utah

5. Lease Designation and Serial No.

U-18452A\* & U65915

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

\*Unit Applied For  
(Knockdhu Unit)

8. Well Name and No.

#1 Knockdhu

9. API Well No.

10. Field and Pool, or Exploratory Area

Wildcat

11. County or Parish, State

San Juan County, Utah

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent  
☐ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☒ Other Designation of Operator

- ☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Petral Exploration, LLC as Operator is responsible for conducting all operations in accordance with the requirements of the Oil & Gas Lease, APD, Sundry Notice Approval, Regulations found in 43 CFR, and applicable Onshore Orders and /or Notice to Lessees.

Bond coverage for Operations conducted on this well is being provided by the Operator stated above in the form of a \$10,000.00 lease bond, x \$25,000.00-Statewide bond, \$150,000.00 nationwide Bond, or other (specify) . BLM bond number UT 1040 . Surety number if known Deposit Cert # 101741006.

\* Operator designation is for leased lands excluding SE1/4SE1/4 of Sec. 33, T.37S., R. 25 E.

Celsius Energy Company

Approval By Lessee: G. L. Nordloh  
Its: President and CEO

14. I hereby certify that the foregoing is true and correct

Signed Anthony R. Mayer  
(This space for Federal or State office use)

Title Petral Exploration LLC Petroro Corporation, Manager  
Sr. Vice President of

Date 2-13-96

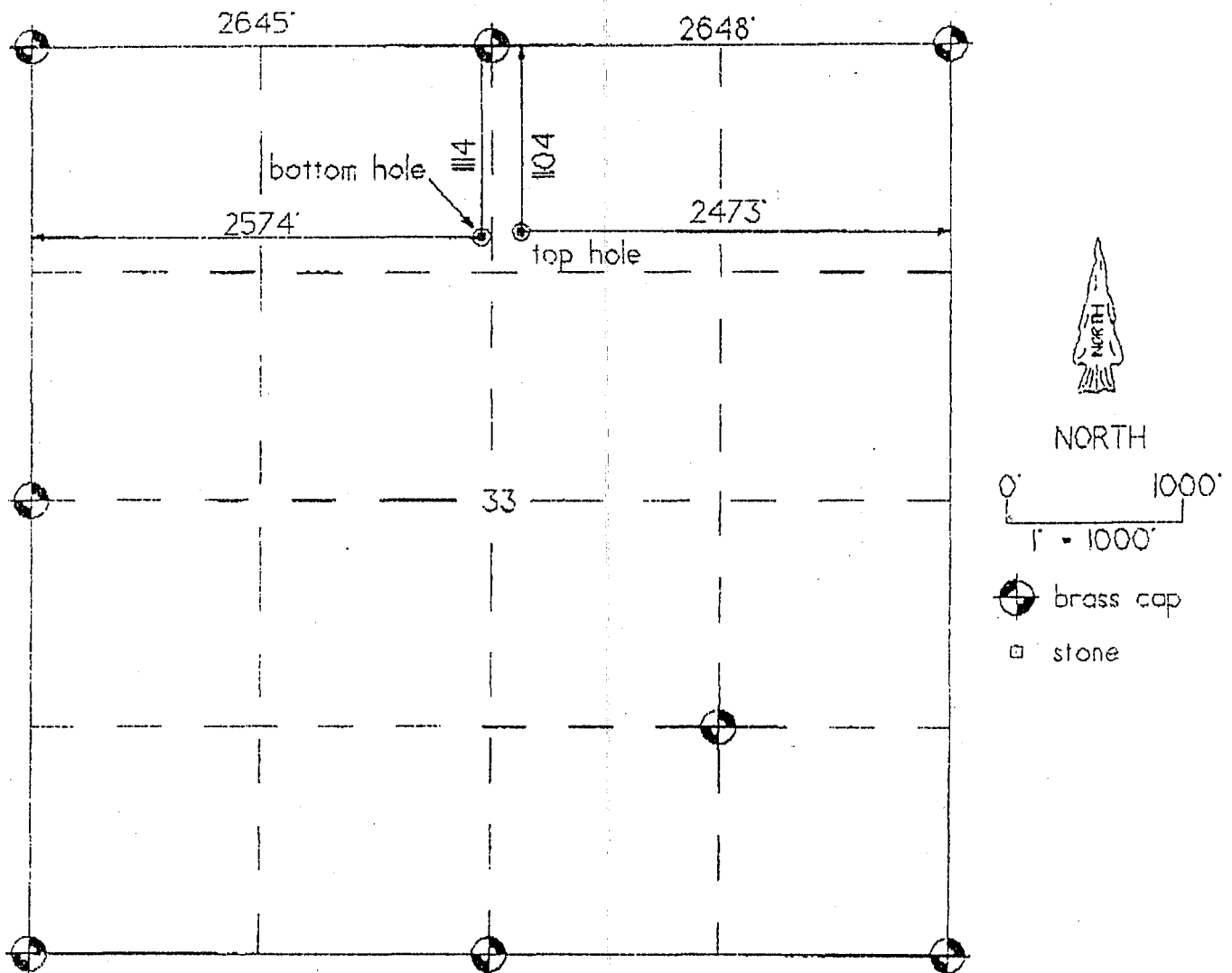
Approved by Branch of Fluid Minerals  
Conditions of approval, if any: Moab District

Title Branch of Fluid Minerals  
Moab District

Date MAR 4 1996



Well Location Plat



Well Location Description

PETRAL EXPLORATION

# 1 Knockdhu Federal

1104'FNL & 2473'FEL (top hole)

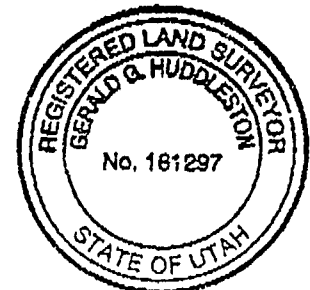
1114'FNL & 2574'FWL (bottom hole)

Section 33, T.37 S., R.25 E., SLM

San Juan County, UT

5572' grd. el.

GPS surveyed.



14 February 1996

Gerald G. Huddleston

Gerald G. Huddleston, LS

The above is true and correct to my knowledge and belief.

HUDDLESTON LAND SURVEYING - BOX KK - CORTEZ, CO - (970) 565 -3330

Petral Exploration, LLC  
Well No. Knockdhu #1  
NWNE Sec. 33, T.37S., R.25E.  
Location:

Surface 1104 FNL & 2473 FEL Section 33, T37S, R25E  
Bottom Hole 1114 FNL & 2574 FWL Section 33, T37S, R25E  
San Juan County, Utah  
Lease U-18452A

#### CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that Petral Exploration, LLC is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by UT 1040 (Principal - Petral Exploration, LLC) via surety consent as provided for in 43 CFR § 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR § 3106.7-2 continuing responsibility are met.

This permit will be valid for a period of one year from the date of approval, provided the lease is still in effect. After permit termination, a new application must be filed for approval.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR 3100), Onshore Oil and Gas Orders, lease terms, notices to lessees, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to field representatives to insure compliance.

A. DRILLING PROGRAM

1. Since this well is proposed as an deviated hole, Petral Exploration, LLC must ensure that spacing conforms with all requirements of the State of Utah, Division of Oil, Gas and Mining (DOGM).

2. The surface casing must be set at least 50 feet into the Chinle Formation regardless of the depth at which it is encountered and must be cemented to surface.

3. The proposed directional survey shall be submitted to the BLM with the completion report.

4. The initial opening of the drill stem test must be made during daylight hours.

5. Location can be built prior to receiving unit approval. However, the well cannot be spud until the unit is approved. If the well is not drilled then reclamation must begin and be consistent with "Plans for Restoration of the Surface", Step 10 of the Thirteen Point Surface Use Plan.

6. All BOPE must be tested and operated in compliance with the standards of the Onshore Order #2.

## B. SURFACE USE PLAN

The following stipulations have been developed to mitigate adverse environmental impacts which may result from the action permitted by the accompanying decision. The action permitted and its anticipated impacts are fully described in the environmental assessment or categorical exclusion referenced above.

1. BLM will complete a raptor/owl survey and clearance of the affected area surrounding the proposed drilling site prior to work initiation if the proposed well is drilled between February 1 and July 15. If the raptor/owl survey locates an active raptor/owl nest which would be affected by this proposal, no work would be allowed until nestlings have fledged. If either raptors or owls nest on the east side of the adjacent mesa, within 1/4-mile of the proposed drilling site, additional work after the well completion phase will be evaluated and a determination for approval for said work will be made. No post-completion work will be approved that will be detrimental to raptor or owl nestlings. If work is to be conducted between July 16 and January 31, a raptor/owl survey and clearance will not be required.
2. After drilling operations cease the reserve pit will be effectively netted to prevent animal access and entry.
3. Any paleontological resource discovered by the operator or person working on their behalf on BLM administered land, shall be immediately reported to the San Juan Resource Area Manager. The operator shall suspend all operations in the area of the discovery until written authorization to proceed is issued by the San Juan Resource Area Manager. An evaluation of the discovery will be made by the San Juan Resource Area Manager to determine appropriate actions to prevent the loss of significant scientific values.
4. If a production facility is constructed all production tanks shall be placed inside dikes constructed of compact subsoils and capable of containing 1½ times the volume of the largest tank capacity.
5. Written authorization shall be obtained prior to construction of any pipelines leaving the well location.
6. Reclamation of the entire disturbed area will be accomplished by grading the area as near as practical back to the natural contour and spreading the top soil as evenly as possible over the area. The entire disturbed area will be scarified with a 6 inch or less distance between ripped surfaces. The soil surface will be dry and loose prior to seeding and will be broadcast seeded between October 1 and February 28 with the following mixture of pure live seed:

Galleta	2 pounds/acre
Indian ricegrass	2 pounds/acre
Fourwing saltbush	2 pounds/acre
Sand dropseed	1 pound/acre
Wild sunflower	1 pound/acre
Cliffrose	1 pound/acre
Mormon tea	1 pound/acre

### C. REQUIRED APPROVALS, REPORTS AND NOTIFICATIONS

Required verbal notifications are summarized in Table 1, attached.

Building Location- Contact the San Juan Resource Area, at least 48 hours prior to commencing construction of location.

Spud- The spud date will be reported to the San Juan Resource Area Office 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the Moab District Office within 24 hours after spudding, regardless of whether spud was made with a dry hole digger or big rig.

Daily Drilling Reports- Daily drilling reports shall detail the progress and status of the well and shall be submitted to the Moab District Office on a weekly basis.

Monthly Reports of Operations- In accordance with Onshore Oil and Gas Order No. 1, this well shall be reported on Minerals Management Service (MMS) Form 3160, "Monthly Report of Operations," starting the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with MMS.

Sundry Notices- There will be no deviation from the proposed drilling and/or workover program without prior approval from the Moab District Office. "Sundry Notices and Reports on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR § 3162.3-2. Safe drilling and operating practices must be observed.

Drilling Suspensions- Operations authorized by this permit shall not be suspended for more than 30 days without prior approval of the Moab District Office. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.

Undesirable Events- Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be immediately reported to the Resource Area in accordance with requirements of NTL-3A.

Cultural Resources- If cultural resources are discovered during construction, work that might disturb the resources is to stop, and the San Juan Resource Area is to be notified.

First Production- Should the well be successfully completed for production, the Moab District Office will be notified when the well is placed in producing status. Such notification may be made by phone, but must be followed by a sundry notice or letter not later than five (5) business days following the date on which the well is placed into production.

A first production conference will be scheduled as soon as the productivity of the well is apparent. This conference should be coordinated through the San Juan Resource Area Office. The San Juan Resource Area Office shall be notified prior to the first sale.

Well Completion Report- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted to the Moab District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR § 3162.4-1. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. When requested, samples (cuttings and/or samples) will be submitted to the Moab District Office.

Venting/Flaring of Gas- Gas produced from this well may not be vented/flared beyond an initial, authorized test period of 30 days or 50 Mmcft, whichever first occurs, without the prior, written approval of the Moab District Office. Should gas be vented or flared without approval beyond the authorized test period, the well may be ordered shut-in until the gas can be captured or approval to continue the venting/flaring as uneconomic is granted. In such case, compensation to the lessor shall be required for that portion of the gas that is vented/flared without approval and which is determined to have been avoidably lost.

Produced Water- Produced waste water may be confined to an unlined pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with a water analysis, if required, will be submitted to the District Office for approval pursuant to Onshore Oil and Gas Order No. 7.

Off-Lease Measurement, Storage, Commingling- Prior approval must be obtained from the Moab District Office for off-lease measurement, off-lease storage and/or commingling (either down-hole or at the surface).

Plugging and Abandonment- If the well is completed as a dry hole, plugging instructions must be obtained from the Moab District Office prior to initiating plugging operations.

A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the Moab District Office within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR § 3162.6. Final abandonment will not be approved until the surface

reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the San Juan Resource Area Manager or his representative, or the appropriate surface managing agency.

# TABLE 1 NOTIFICATIONS

Notify Jeff Brown or Gary Torres of the San Juan Resource Area in Monticello, Utah at (801) 587-2141 for the following:

2 days prior to commencement of dirt work, construction and reclamation;

1 day prior to spudding;

50 feet prior to reaching surface casing depth;

3 hours prior to testing BOPE;

Upon reaching the kick-off point;

If the above cannot be reached, notify the Moab District Office at (801) 259-6111. If unsuccessful, notify the person listed below.

Well abandonment operations require 24 hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained by calling the Moab District Office at (801) 259-6111. If approval is needed after work hours, you may contact the following:

Gary Torres, Petroleum Engineer	Office:	(801)-259-6111
	Home:	(801) 587-2705
Eric Jones, Petroleum Engineer	Office:	(801) 259-6111
	Home:	(801) 259-2214



# *WILSON DOWNHOLE DIRECTIONAL SERVICES*

## *COMPLETION REPORT*

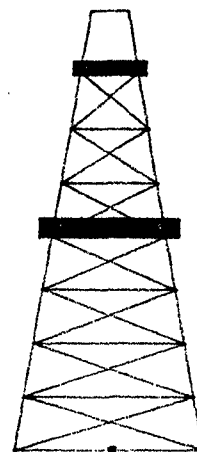
*FOR*

**PETRAL EXPLORATION, LLC**

**KNOCKDHU FEDERAL #1**

**SECTION 33 T37S R25E**

**SAN JUAN COUNTY, UTAH**



MULTISHOT AND MWD SURVEY CALCULATIONS

PETRAL EXPLORATION, LLC  
 KNOCKDHU FEDERAL #1  
 SECTION 33 - T37S - R25E  
 SAN JUAN COUNTY, UTAH

## MULTISHOT AND MWD SURVEY INFORMATION

Vert. Sect. Dir. = S 87.7000 W Calculations using the Minimum curvature Method

Meas. Depth	Hole Ang.	T.V.D.	V. S. Dist.	Hole Dir.	Total Lat.	Coordinates Dep.	C L O S U R E S Distance	D. L. Sev.
3746	.65	3745.90	.08	N 49.57 E	25.50 N	1.10 W	25.52 N 2.4701 W	.00
3773	.65	3772.90	-.19	N 64.83 E	25.66 N	.84 W	25.68 N 1.8854 W	.64
3804	.80	3803.90	-.52	N 49.80 E	25.88 N	.52 W	25.88 N 1.1520 W	.78
3835	.50	3834.89	-.78	N 37.40 E	26.13 N	.27 W	26.13 N .5985 W	1.06
3864	.80	3863.89	-.92	N 17.00 E	26.42 N	.14 W	26.42 N .2968 W	1.29
3894	.50	3893.89	-.97	N 11.30 W	26.75 N	.10 W	26.75 N .2170 W	1.44
3923	.60	3922.89	-.86	N 41.90 W	26.99 N	.23 W	26.99 N .4830 W	1.05
3956	1.20	3955.88	-.55	N 36.80 W	27.39 N	.55 W	27.40 N 1.1501 W	1.83
3987	1.50	3986.88	-.06	N 50.70 W	27.91 N	1.06 W	27.93 N 2.1717 W	1.43
4020	1.30	4019.87	.63	N 86.60 W	28.20 N	1.77 W	28.26 N 3.5834 W	2.68
4049	2.00	4048.85	1.47	S 87.40 W	28.20 N	2.60 W	28.32 N 5.2679 W	2.48
4080	2.40	4079.83	2.64	N 80.60 W	28.28 N	3.78 W	28.53 N 7.6145 W	1.96
4110	2.10	4109.81	3.80	N 85.10 W	28.43 N	4.95 W	28.86 N 9.8729 W	1.16
4140	2.20	4139.79	4.92	S 88.60 W	28.46 N	6.07 W	29.10 N 12.0409 W	.85
4171	2.30	4170.76	6.13	S 79.00 W	28.33 N	7.28 W	29.25 N 14.4053 W	1.26
4201	2.90	4200.73	7.49	S 82.60 W	28.12 N	8.62 W	29.41 N 17.0443 W	2.07
4232	3.00	4231.69	9.07	S 79.40 W	27.87 N	10.20 W	29.67 N 20.0949 W	.62
4262	2.90	4261.65	10.57	S 71.60 W	27.48 N	11.69 W	29.87 N 23.0368 W	1.38
4292	3.50	4291.60	12.17	S 68.90 W	26.92 N	13.26 W	30.00 N 26.2305 W	2.06
4323	4.10	4322.54	14.08	S 63.90 W	26.09 N	15.14 W	30.16 N 30.1290 W	2.21
4355	4.30	4354.45	16.25	S 67.20 W	25.12 N	17.27 W	30.48 N 34.5144 W	.98
4386	4.30	4385.36	18.43	S 68.10 W	24.23 N	19.42 W	31.06 N 38.7097 W	.22
4417	4.40	4416.27	20.69	S 75.30 W	23.50 N	21.65 W	31.95 N 42.6555 W	1.79
4449	5.50	4448.15	23.39	S 75.80 W	22.81 N	24.33 W	33.35 N 46.8387 W	3.44
4480	5.90	4479.00	26.40	S 76.00 W	22.06 N	27.31 W	35.11 N 51.0688 W	1.29

PETRAL EXPLORATION, LLC  
 KNOCKDHU FEDERAL #1  
 SECTION 33 - T37S - R25E  
 SAN JUAN COUNTY, UTAH

## MULTISHOT AND MWD SURVEY INFORMATION

Vert. Sect. Dir. = S 87.7000 W Calculations using the Minimum curvature Method

Meas. Depth	Hole Ang.	T.V.D.	V. S. Dist.	Hole Dir.	Total Lat.	Coordinates Dep.	C L O S U R E S Distance	Direction	D. L. Sev.
4512	6.00	4510.83	29.63	S 72.30 W	21.16 N	30.50 W	37.12 N	55.2541 W	1.24
4544	6.80	4542.63	33.08	S 74.10 W	20.13 N	33.92 W	39.44 N	59.3119 W	2.58
4575	7.20	4573.40	36.78	S 77.30 W	19.20 N	37.58 W	42.20 N	62.9366 W	1.80
4608	7.60	4606.12	40.92	S 73.50 W	18.12 N	41.69 W	45.46 N	66.5018 W	1.91
4639	8.30	4636.82	45.10	S 75.00 W	16.96 N	45.81 W	48.85 N	69.6824 W	2.35
4669	8.70	4666.49	49.43	S 76.20 W	15.86 N	50.11 W	52.56 N	72.4355 W	1.46
4701	9.30	4698.10	54.34	S 77.00 W	14.70 N	54.98 W	56.91 N	75.0284 W	1.92
4733	10.00	4729.65	59.62	S 77.50 W	13.52 N	60.21 W	61.71 N	77.3451 W	2.20
4765	10.50	4761.14	65.22	S 77.20 W	12.27 N	65.77 W	66.90 N	79.4303 W	1.57
4796	11.10	4791.59	70.95	S 78.80 W	11.07 N	71.45 W	72.30 N	81.1956 W	2.16
4829	11.90	4823.92	77.43	S 77.50 W	9.71 N	77.88 W	78.49 N	82.8915 W	2.55
4860	12.40	4854.23	83.83	S 75.20 W	8.17 N	84.22 W	84.62 N	84.4589 W	2.24
4890	13.10	4883.49	90.32	S 77.30 W	6.60 N	90.65 W	90.89 N	85.8356 W	2.80
4921	13.80	4913.64	97.40	S 76.50 W	4.97 N	97.68 W	97.80 N	87.0901 W	2.34
4953	14.00	4944.70	104.94	S 76.60 W	3.18 N	105.15 W	105.20 N	88.2694 W	.63
4984	14.30	4974.76	112.38	S 77.00 W	1.45 N	112.53 W	112.54 N	89.2634 W	1.02
5016	14.50	5005.76	120.20	S 76.70 W	.36 S	120.28 W	120.28 S	89.8267 W	.67
5049	15.10	5037.66	128.48	S 77.30 W	2.26 S	128.49 W	128.51 S	88.9927 W	1.88
5081	15.40	5068.53	136.76	S 77.00 W	4.13 S	136.70 W	136.76 S	88.2690 W	.97
5113	15.40	5099.39	145.14	S 79.90 W	5.83 S	145.02 W	145.14 S	87.6971 W	2.41
5144	16.00	5129.23	153.46	S 80.70 W	7.24 S	153.29 W	153.46 S	87.2943 W	2.06
5175	16.80	5158.97	162.14	S 80.10 W	8.71 S	161.92 W	162.16 S	86.9227 W	2.64
5206	15.80	5188.72	170.76	S 79.70 W	10.23 S	170.49 W	170.79 S	86.5661 W	3.25
5237	15.30	5218.59	179.01	S 82.40 W	11.53 S	178.69 W	179.07 S	86.3096 W	2.84
5267	15.30	5247.52	186.91	S 84.50 W	12.43 S	186.56 W	186.97 S	86.1886 W	1.85

PETRAL EXPLORATION, LLC  
 KNOCKDHU FEDERAL #1  
 SECTION 33 - T37S - R25E  
 SAN JUAN COUNTY, UTAH

## MULTISHOT AND MWD SURVEY INFORMATION

Vert. Sect. Dir. = S 87.7000 W Calculations using the Minimum curvature Method

Meas. Depth	Hole Ang.	T.V.D.	V. S. Dist.	Hole Dir.	Total Lat.	Coordinates Dep.	C L O S U R E S Distance	Direction	D. L. Sev.
5299	15.20	5278.40	195.30	S 83.40 W	13.32 S	194.93 W	195.38 S	86.0923 W	.96
5330	15.20	5308.31	203.42	S 84.80 W	14.15 S	203.01 W	203.50 S	86.0127 W	1.18
5361	14.50	5338.28	211.35	S 84.90 W	14.86 S	210.92 W	211.45 S	85.9690 W	2.26
5424	13.10	5399.46	226.37	S 88.70 W	15.73 S	225.92 W	226.46 S	86.0178 W	2.65
5455	12.30	5429.70	233.18	S 88.70 W	15.88 S	232.73 W	233.27 S	86.0962 W	2.58
5487	12.00	5460.98	239.91	N 89.00 W	15.90 S	239.47 W	239.99 S	86.2010 W	1.78
5518	11.30	5491.34	246.16	N 90.00 W	15.84 S	245.72 W	246.23 S	86.3106 W	2.35
5547	10.20	5519.83	251.57	N 89.70 W	15.83 S	251.13 W	251.63 S	86.3929 W	3.80
5579	9.80	5551.35	257.11	N 86.30 W	15.64 S	256.68 W	257.16 S	86.5131 W	2.23
5611	9.60	5582.89	262.47	N 87.40 W	15.34 S	262.07 W	262.52 S	86.6492 W	.85
5643	8.60	5614.49	267.52	N 88.10 W	15.14 S	267.12 W	267.55 S	86.7553 W	3.14
5650	8.60	5621.41	268.56	N 86.70 W	15.10 S	268.17 W	268.60 S	86.7781 W	2.99
5700	8.20	5670.87	275.83	N 86.70 W	14.68 S	275.46 W	275.85 S	86.9504 W	.80
5750	7.90	5720.38	282.79	N 86.00 W	14.23 S	282.45 W	282.81 S	87.1157 W	.63
5800	7.60	5769.92	289.50	N 86.00 W	13.76 S	289.18 W	289.50 S	87.2757 W	.60
5850	7.80	5819.47	296.15	N 85.00 W	13.23 S	295.85 W	296.15 S	87.4388 W	.48
5900	8.75	5868.95	303.29	N 85.00 W	12.61 S	303.02 W	303.29 S	87.6177 W	1.90
5962	10.00	5930.12	313.26	N 82.00 W	11.45 S	313.05 W	313.26 S	87.9059 W	2.16
6000	9.90	5967.55	319.72	N 82.00 W	10.53 S	319.55 W	319.73 S	88.1122 W	.26
6023	10.00	5990.20	323.65	N 85.00 W	10.08 S	323.50 W	323.66 S	88.2147 W	2.30

Bottom Hole Closure 323.66 at S 88.2147 W

PETRAL EXPLORATION, LLC  
KNOCKDHU FEDERAL #1  
SECTION 33 - T37S - R25E  
SAN JUAN COUNTY, UTAH  
WILSON DOWNHOLE DIRECTIONAL SERVICES  
MULTISHOT AND MWD SURVEY INFORMATION

INITIAL SURVEY POINT

MD 3746.00 FEET  
TVD 3745.90 FEET  
NORTH 25.50 FEET  
WEST 1.10 FEET

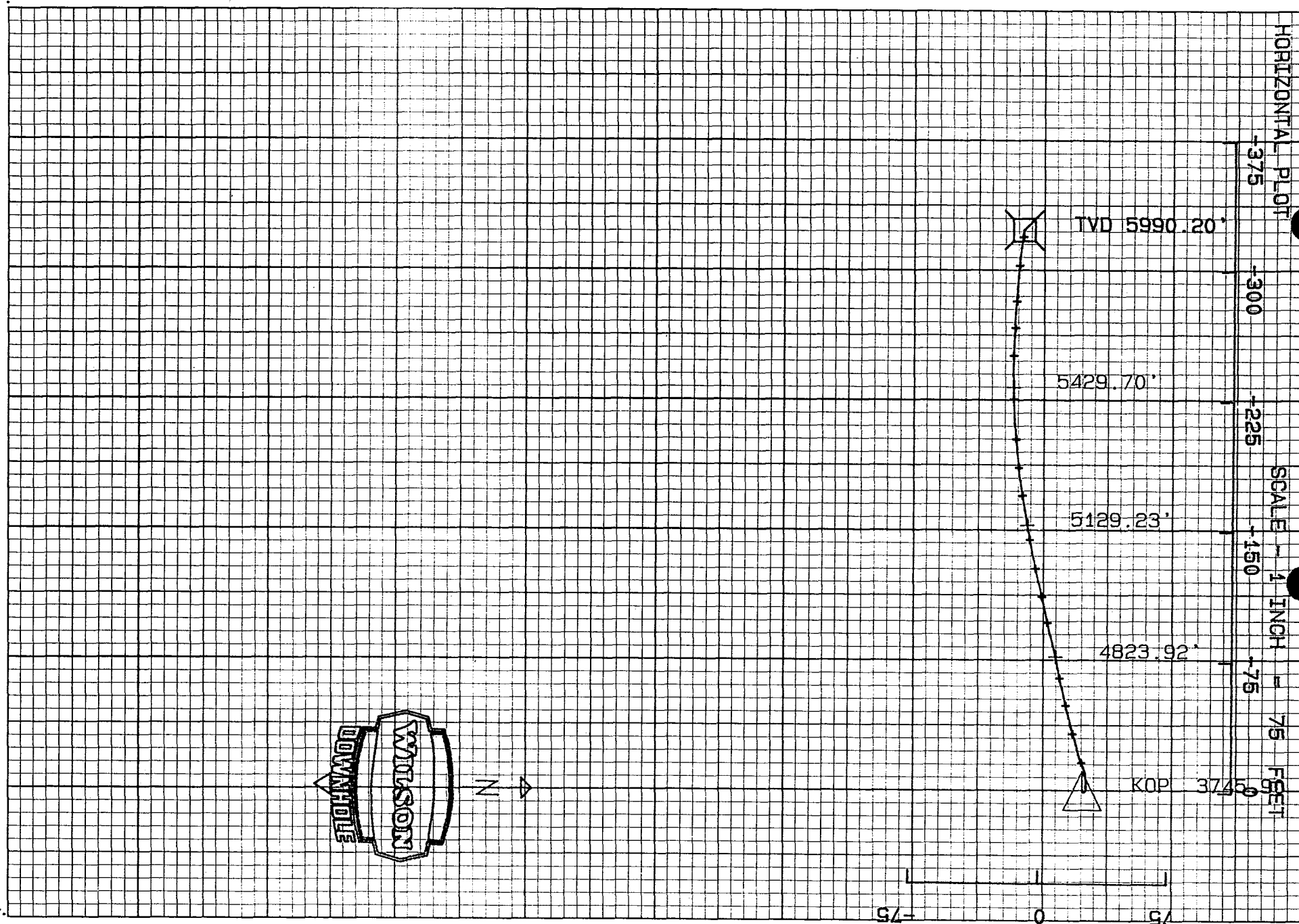


BOTTOM HOLE LOCATION

MD 6023.00 FEET  
TVD 5990.20 FEET  
SOUTH 10.08 FEET  
WEST 323.50 FEET



CLOSURE = 323.66' S 88° 12' 53" W



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BOTTOM HOLE LOCATION

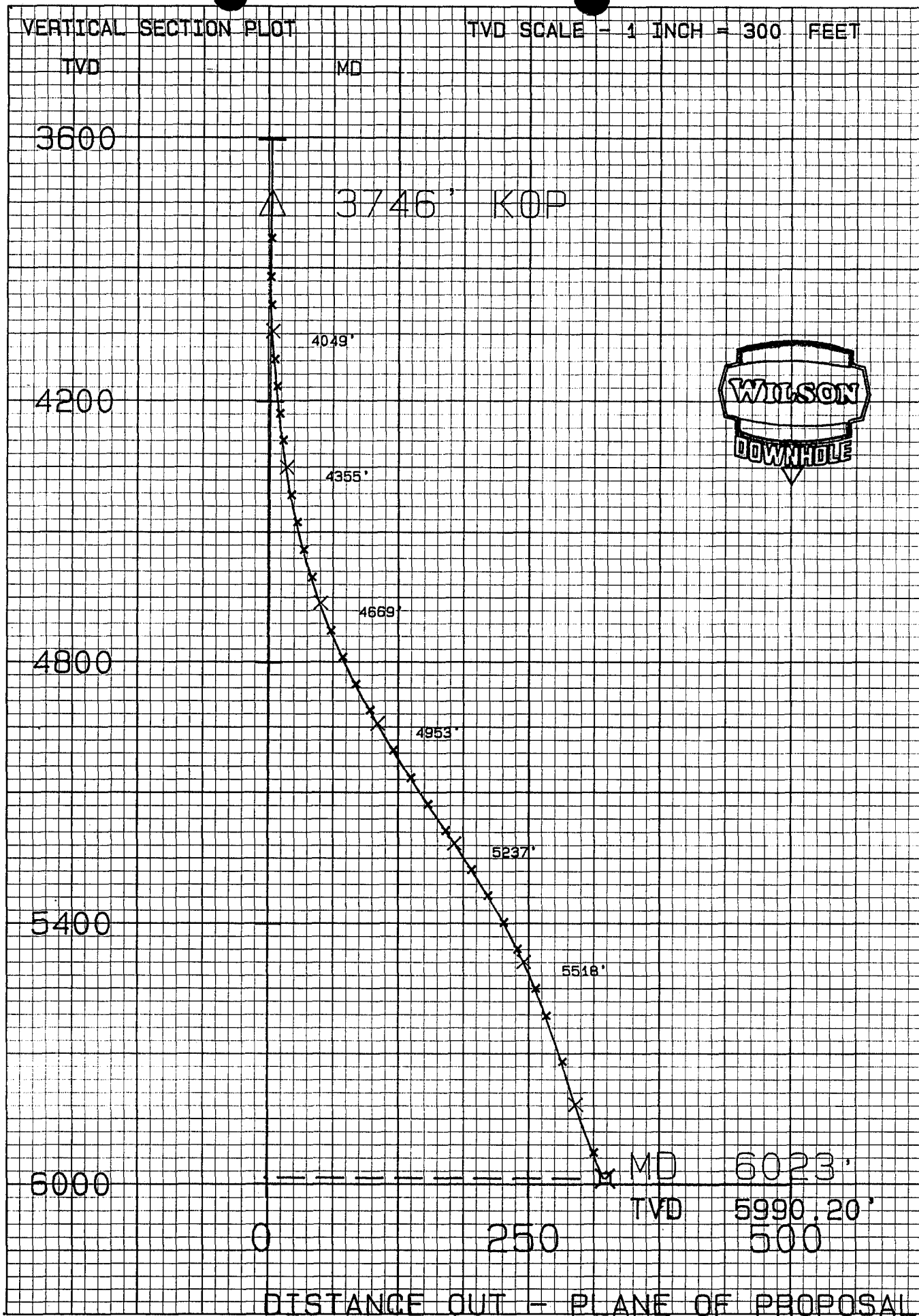
MD 6023.00 FEET  
TVD 5990.20 FEET  
SOUTH 10.08 FEET  
WEST 323.50 FEET



CLOSURE = 323.66' S 88° 12' 53" W

NO. XY-1001 - SP 3

GRAPHIC CONTROLS CORPORATION  
BUFFALO, NEW YORK  
PRINTED IN U.S.A.





# facsimile

## TRANSMITTAL

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**to:** State of Utah, Division of Oil, Gas & Mining  
**fax #:** (801) 359-3940  
**re:** Petral Exploration, LLC, #1 Horseshoe Unit  
SW NW NE Sec. 33-T37S-R25E, San Juan Co., UT  
API 43-037-31773, Lease No. UTU 18452A  
**date:** March 15, 1996  
**pages:** 2, including cover sheet.

Attached is our first weekly progress report on the above referenced well. I will fax these reports every Friday AM.

If you want me to handle the reporting in any other manner, just let me know.

Sharon

From the desk of...

Sharon Orr

McIlnay & Associates, Inc.  
2305 Oxford Lane  
Casper, WY 82604

307 265-4351  
Fax: 307 473-1218

DAILY DRILLING REPORTS

Petral Exploration, L.L.C.  
#1 Knockdhu Unit, UTU 75040X  
API 43-037-31773  
SW NW NE Sec. 33-T37S-R25E  
San Juan Co., Ut  
BHL UTU-18452A, Surf - UTU-65915

Reports for work performed the day prior.3-7-96

Holliday Construction began dirtwork for access road and wellsite preparation 3/6/96. Placed minimum of 2' of dirt pad over pipeline crossings. Access road 95% complete. Will start preparing location this A.M. (3/7/96). Jeff Brown with BLM on site with wildlife biologist and paleontologist. Everything okay. Work may be completed Sunday (3/10/96). Based upon approval of the Unit, will move in Monday or Tuesday (3/11 or 12/96). Upon setting of conductor will move in rotary tools. Conductor should be set, if no problems, in one day.

3-8-96

Access road complete. Well site 50% complete. Location and pit should be finished by Sunday if no rock problems are encountered. Therefore, well site will be ready for move in of dry hole digger to set conductor pipe. Thereafter, rotary tools can move in and rig up to spud.

3-11-96

Access road, location and reserve pit, which was sealed with bentonite, 95% complete 3/10/96 P.M. (Sunday). Holliday Construction has small amount of grading to finish. Four Corners toolpusher checked location out 3/10/96 - everything OK. Bill Jr.'s Rathole equipment will move in and rig up 3/12/96 A.M. to install conductor casing. Conductor casing will be set by Wednesday (3/13/96) P.M. Plan on setting rig anchors Thursday A.M. (3/14/96). Location will then be ready for rotary tools. Jeff Brown (BLM) on location 3/8/96. Everything okay. Have verbally kept BLM informed of our activities and schedule.

3-12-96

Dirtwork completed 3/11/96. Moved in dry hole digger at 4 PM. Drilled 15', 20" hole for 16" conductor and SD @ 6 PM. Encountered a small amount of rock. If rock does not become a problem, should finish setting conductor 3-13-96

Will get a water truck to location to spray the reserve pit to contain bentonite.

3-13-96

Drilled 20" hole to 74'. Hit solid rock. Cleaned out hole and prepared to run and cement 16" conductor in AM (3/13/96). Shut down @ 6 PM.

Four Corners' rig will move in and start rigging up Saturday (3/16/96). Will spud 3/16/96 late P.M. or Sunday (3/17/96).

3-14-96

Ran 21 Jts. (80') 16", 0.25" wall thickness conductor casing & set at 75' GL. Welded 2 Jts. together. Cemented to surface with 6 1/4 yards of ready mix cement.

Holliday Construction lengthening reserve pit approximately 25'. Initially built reserve pit was constructed smaller than specified. SDFN @ 6 PM.

3-15-96

Extended reserve pit 20' and graded location. Will reseal pit with bentonite Friday (3-15-96). Rig anchors will be installed Friday. Four Corners Rig #7 will move in and rig up Saturday (3/16/96). Anticipate spud Saturday PM or Sunday AM.

**CONFIDENTIAL**

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: PETRAL EXPLORATION

Well Name: # 1 KNOCKDHU

Api No. 43-037-31773

Section 33 Township 37S Range 25E County SAN JUAN

Drilling Contractor FORE CORNERS

Rig # 7

SPUDDED: Date 3/16/96

Time 4:30 PM

How ROTARY

Drilling will commence

Reported by SHARON ORR

Telephone # 1-307-265-4351

Date: 3/16/96 Signed: MKH

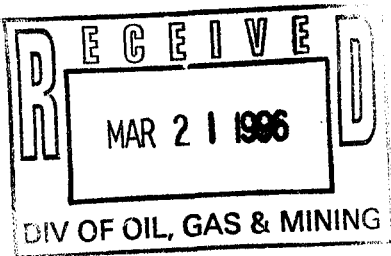
*From the Desk of*

SHARON ORR

We have listed the home office address of Petral Exploration. However, we are taking care of their paperwork and would appreciate any correspondence coming to our office.

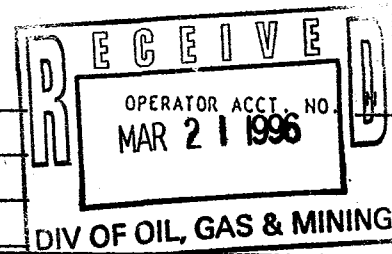
Thank you

McIlnay & Associates, Inc.  
2305 Oxford Lane,  
Casper, WY 82604



STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING  
ENTITY ACTION FORM - FORM 6

OPERATOR Petral Exploration, LLC  
ADDRESS Box 5083  
Denver, CO 80217



ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
A	99999	11890	43-037-31773	#1 Knockdhu Unit	SW NW NE	33	37S	25E	San Juan	3/16/96	
<p>WELL 1 COMMENTS: Federal Unit - Knockdhu Unit UTU 75040X This well is being drilled as a "Tight Hole"</p> <p style="text-align: right;"><i>Entity added 3-25-96. Lee</i></p>											
<p>WELL 2 COMMENTS:</p>											
<p>WELL 3 COMMENTS:</p>											
<p>WELL 4 COMMENTS:</p>											
<p>WELL 5 COMMENTS:</p>											

- ACTION CODES (See instructions on back of form)
- A - Establish new entity for new well (single well only)
  - B - Add new well to existing entity (group or unit well)
  - C - Re-assign well from one existing entity to another existing entity
  - D - Re-assign well from one existing entity to a new entity
  - E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)

*David A. McIlroy*  
Signature McIlroy & Associates  
Petral Expl. Repr. 3-18-96  
Title Date  
Phone No. (307) 265-4351

# facsimile

## TRANSMITTAL

---

**to:** State of Utah, Division of Oil, Gas & Mining  
**fax #:** (801) 359-3940  
**re:** Petral Exploration, LLC, #1 Horseshoe Unit  
SW NW NE Sec. 33-T37S-R25E, San Juan Co., UT  
API 43-037-31773, Lease No. UTU 18452A  
**date:** March 22, 1996  
**pages:** 6, including cover sheet.

Attached is the weekly progress report on the above referenced well along with a Sundry on setting surface casing and testing BOP's.

If you have any questions, please give us a call.

Sharon

*Confidential*  
*File*

From the desk of...

Sharon Orr

McInay & Associates, Inc.  
2305 Oxford Lane  
Casper, WY 82604

307 265-4351  
Fax: 307 473 1218

Daily Drilling Reports  
Petral Exploration, I.I.C.

#1 Knockdhu Unit - UTU18452A

Page 2

**3-16-96**

Installed rig anchors. Delivered and set trash basket and 400 Bbl. tanks for standby water supply. Bentonited rebuilt portion of reserve pit with 10 tons of bentonite. Four Corners Rig #7 to move in and rig up 3/16/96.

**3-17-96**

1 day from spud

**Depth:** 312' - made 225' in 9 1/4 Hrs.**Status:** Tripping for DC

**Hours:** 9 1/4 Drilling  
1/2 Tripping  
1 Circulating  
1/4 Rig Service  
10 1/2 Rigging up  
1 1/2 Rat Hole/Mouse Hole  
1 Pick up BHA

**BIT**

1, 12 1/4", Reed, HP51H, SN L70169 In @ 87' - made 225' in 9 1/4 Hrs.,  
Jets 14/14/15, 25.6'/Hr.

**Mud:**

Wt. 8.4

**BHA:**

Bit, Bit sub, 5-8" DC, 1-XO sub, 5-6" DC  
WOB - 25,000#, RPM - 80, Pump - 1400 PSI,  
Pump #1 - 6 x 8, 100 SPM

**Details:**

Moved in and rigged up mouse hole and rat hole @ 4:30 PM 3/16/96. Picked up BHA. Started drilling out from under conductor @ 7 PM. Drilled to 312'. Mixed and circulated polymer sweep. TOH for Monel DC. No hole problems. Truck delivering the monel collar broke down, therefore could not pick up monel collar at spud.

**Costs:**

Cost To Date: \$ 46,076

**3-18-96**

2 days from spud

**Depth:** 1370' - made 1058' in 19 1/4 Hrs. Cum. Drlg. Hr. 28 1/2**Status:** Drilling

**Hours:** 19 1/4 Drilling  
1 3/4 Tripping  
3 Survey

**BIT**

1, 12 1/4", Reed, HP51H, SN L70169 In @ 87' - made 1283' in 20 1/2 Hrs.,  
Jets 14/14/15, 45'/Hr.

**Mud:**

Wt. 8.4

**Survey:**

MD	ANGLE	DIRECTION	TVD	N/S	E/W	CLOSURE	DIRECTION
75	0	0	75	0	0	0	0
293	1/4	S67W	293	-19	-44	.48	S67W
349	3/4	S67W	349	-38	-89	.96	S67W
527	0	0	526.99	-83	-1.96	2.12	S67W
703	1/4	N3W	702.99	-45	-1.98	2.03	S77W
889	1/4	N58W	888.99	.17	-2.35	2.36	N86W
1061	1 1/4	N28W	1060.97	20.3	-3.54	4.08	N70W
1257	1 3/4	N31W	1256.91	6.48	-6.09	8.88	N43W

**BHA:**

Bit, Bit sub, 5-8" DC, 1-XO sub, 12 - DC = 595.2 WOB 15-45,000#,  
RPM - 80, Pump - 1400 PSI, GPM 600, AVDP/AVDC - 113/129  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8, 100 SPM

**Details:**

Will resurvey the surface location and elevation GL/KB tomorrow. Will use Geophysical Control Sta. #3 (elev. 5351.8') as reference point. Received 44 Jts. 9 5/8", 36#/ft., J55, ST&C at location. Drilling and taking directional surveys. Ran 25-45,000# WOB to 1279'. Reduced weight to 15,000# when survey showed 1 3/4° deviation. Hole taking a small seepage of water but no significant losses. Drilling with no problems.

**Costs:**

Daily Cost: \$ 8,523

Cum. Cost. \$ 54,599

Daily Drilling Reports  
Petril Exploration, LLC

#1 Knockdhu Unit - UTU18452A

Page 3

**3-19-96** 3 days from spud  
**Depth:** 1765' - made 707' in 22 Hrs. Cum. Drlg. Hrs. 50 1/2  
**Status:** Drilling  
**Hours:** 22 Drilling  
1 3/4 Survey  
1/4 Circulating

**BIT** 1, 12 1/4", Reed, IIP51H, SN L70169 In @ 87' - made 1990' in 50 1/2 Hrs.,  
Jets 14/14/15, 39.4'/Hr.

**Mud:** Wt. 8.4,

**Survey:**

MD	ANGLE	DIRECTION	TVD	N/S	E/W	CLOSURE	DIRECTION
1342	1.5	N51W	1341.87	8.29	-7.62	11.26	N43.6W
1420	1.75	N42W	1419.84	9.82	-9.21	13.46	N43.2W
1513	1.25	N50W	1512.81	11.53	-10.94	15.89	N43.5W
1605	1.25	N53W	1604.79	12.78	-12.51	17.88	N44.4W

**BHA:** Bit, Bit sub, 5-8" DC, 1-XO sub, 12 - DC =595.22', WOB 15-30,000#,  
RPM - 80, Pump - 1400 PSI, GPM 600, AVDP/AVDC - 113/129  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8, 100 SPM

**Details:** Notified Mike Hebertson with State of Utah and Gary Torres with BLM of spud. Jeff Brown, BLM visited location. He will witness cementing of surface casing. Drilling with no problems and taking directional surveys. Increased WOB at 1513' to 20,000#, and at 1720 to 30,000#.

**Costs:** Daily Cost: \$ 6,929 Cum. Cost. \$ 61,528 Rem. AFE: \$ 422,468

**3-20-96** 4 days from spud  
**Depth:** 1800' - made 35' in 2 3/4 Hrs. Cum. Drlg. Hrs. 53.25  
**Status:** WOC and nipple up  
**Hours:** 2 3/4 Drilling  
1/2 Survey  
1/4 Circulating  
1 1/4 Tripping  
2 1/2 Run Casing  
1 3/4 Cementing  
4 1/2 Cut casing & weld  
10 WOC  
1/2 Nipple up BOP

**BIT** 1, 12 1/4", Reed, HP51H, SN L70169 In @ 87' - out @ 1800' - made 1713' in 53.25 Hrs.,  
Jets 14/14/15, 33.8'/Hr.

**Mud:** Wt. 8.4

**Survey:**

MD	ANGLE	DIRECTION	TVD	N/S	E/W	CLOSURE	DIRECTION
1761	1.25	N53W	1760.75	14.62	-15.23	21.25	N45.77W

**BHA:** Bit, Bit sub, 5-8" DC, 1-XO sub, 12 - DC =595.22', WOB 15-30,000#,  
RPM - 80, Pump - 1400 PSI, GPM 600, AVDP/AVDC - 113/129  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8, 100 SPM

**SLM:** Talley 1800, Board 1800.44 - no correction

**Details:** Drilled to 1800' KB. Took directional survey. Circulated for 1/4 Hr. TOH for casing. Hole in very good condition. Ran casing and cemented same. Plug down @ 3:05 PM. Could not tag cement after waiting 1 Hr. Necessary to 1". Jeff Brown, BLM representative witnessed the cement job. See details. Cut off conductor and casing and welded on casing head. Pressure tested weld to 2500 psig. Started to nipple up BOP. Will test with Quadco in AM 3/20/96. Kept 10 sks. dry cement on location for seepage.

**Geo.:** Resurveyed the location using Seismic Control Point #3 for reference elevation.  
New KB 5587.4, DF 5585.9, GL 5575.4'. Surveyor will update plat.



Daily Drilling Reports  
Petral Exploration, I.I.C

#1 Knockdhu Unit - UTU18452A

Page 4

**Surface Casing Detail**

1 Dowell Guide Shoe .....	1.00
1 Jt. 9 5/8", 36#/ft., J55, 8R, ST&C new casing .....	40.67
1 Dowell Float Collar .....	1.50
41 Jts. 9 5/8", 36#/ft., J55, 8R, ST&C new casing .....	1765.77
Total .....	1808.94
Above KB .....	- 8.00
Casing Landed KBM .....	1800.94

44 Jts. Delivered  
42 Jts. Used  
2 Jts. On location

**Casing Accessories****Guide Shoe**

1 Centralizer in center of the shoe joint.  
1 Centralizer on 2nd collar about guide shoe  
1 Centralizer every 4th collar for 3 centralizers  
1 Centralizer every 6th collar for 3 centralizers  
1 Centralizer 3rd collar from the surface

**Cementing Details**

Cemented 9 5/8" casing w/500 sks 65/35 G/Poz w/2% CaCl, 1/4#/sk flocele, 6% D-20. Tailed in w/214 sks. Class "G" cement w/2% CaCl and 1/4#/sk flocele. Bumped the plug @ 3:05 PM w/1050 psig. Float held. Circulated - 52 Bbls. cement to surface - good returns throughout job. Waited 1 Hr. and checked for fallback. Could not tag cement w/120' of 1" pipe. Mixed and pumped 100 sks. Class "G" cement w/2% CaCl down the annulus through 1" pipe. No cement to surface. Shut down and waited for more cement to be hauled to the location. Jeff Brown, BLM representative witnessed the cement job through the end of the first top job. Waited 5 1/2 Hrs. Tagged cement 35' below KB. Mixed and pumped 25 sk. 2nd top job through 1" pipe and brought cement to surface.

Approximately 52 Bbls. of cement to surface on primary job, no returns on 1st top job, cement on 1" at 50'. Cement to surface on 2nd top job. Bumped plug w/1050 psig. Plug down @ 3:05 PM 3/19/96. Plug help okay.

Costs: Daily Cost: \$ 46,970 Cum. Cost. \$ 108,498 Rem. AFE: \$ 375,498

**3-21-96** 5 days from spud  
**Depth:** 2025' - made 225' in 9 1/4 Hrs. Cum. Drlg. Hrs. 62.5

**Status:** Drilling w/no problems

**Hours:** 9 1/4 Drilling  
1/4 Survey  
6 1/2 Testing BOP  
2 1/2 Pick up BHA  
1 1/2 Drilling cement  
4 Nipple up BOP

**BIT** 2, 8 3/4", STC, F2H, SN LE9601, In @ 1800' - made 225' in 9.25 Hrs., Jets 11/12/B, 24.3'/Hr.

**Mud:** Wt. 8.4

**Survey:**

MD	ANGLE	DIRECTION	TYD	N/S	E/W	CLOSURE	DIRECTION
1894	1	N40W	1893.72	16.59	-17.13	23.84	N45.9W

**BHA:** Bit, 6" Monel DC, 19 - 6 1/2" DC = 561.55', 5 jts. wt. Pipe - 160.67, WOB 25,000  
RPM - 75 - 80, Pump - 1700 PSI, GPM 300,  $\Delta$ VDP/ $\Delta$ VDC - 135/184  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8, 100 SPM

Daily Drilling Reports  
Petrul Exploration, LLC

#1 Knockdhu Unit - UTU18452A

Page 5

**3-21-96** Continued

**Details:** Finished nipping up BOP. Started pressure test. Outside valve on manifold had to be replaced. Tested casing to 2000 psig for 30 min. Tested manifold, BOP and valves to 3000 psig for 10 min. Tested annular preventer to 1500 psig for 10 min. BOP testing witnessed by Jeff Brown from BLM. PU Monel DC, additional 6 1/2" DC's and weight pipe. TTH and tagged soft cement at 1785'. Started drilling @ 7 PM. 27 Hrs. after plug down. Drilled float, good hard cement and shoe. Started drilling and taking directional survey. WOB 25,000#, 75 RPM. Drilling with no problems.

**Geo.:** Chinele

**Costs:** Daily Cost: \$ 16,212 Cum. Cost. \$ 124,710 Rem. AFE: \$ 359,286

**3-22-96** 6 days from spud

**Depth:** 2915' - made 890' in 21 1/2 Hrs. Cum. Drlg. Hrs. 84

**Status:** Drilling w/no problems

**Hours:** 21 1/2 Drilling  
2 Survey  
1/2 Rig Service

**BIT** 2, 8 3/4", STC, F2H, SN LE9601, In @ 1800' - made 1115' in 30.75 Hrs., Jets 11/12/B, 36.3'/Hr.

**Mud:** Wt. 8.4

**Survey:**

MD	ANGLE	DIRECTION	TVD	N-S	E-W	CLOSURE	DIRECTION
2050	.50	N27W	2049.71	18.24	-18.32	25.85	N45.1W
2204	1.00	N29E	2203.70	20.01	-17.97	26.89	N41.9W
2362	1.25	N35E	2361.67	22.63	-16.31	27.90	N35.8W
2518	1.25	N20W	2517.64	25.62	-15.92	30.16	N31.9W
2672	1.00	N2E	2671.61	28.54	-16.45	32.94	N30.0W
2829	0	N0E	2828.60	29.91	-16.40	34.11	N28.7W

**BHA:** Bit, 6" Monel DC, 19 - 6 1/2" DC = 561.55', 5 jts. wt. Pipe - 160.67, WOB 35,000  
RPM - 75, Pump - 1800 PSI, GPM 300, AVDP/AVDC - 124/161  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,

**Details:** Mud logging unit delivered to location. Drilling and taking direction surveys. No water flows or other problems.

**Geo.:** Cutler

**Costs:** Daily Cost: \$ 7,552 Cum. Cost. \$ 132,262 Rem. AFE: \$ 351,734

Form 3160-5  
(June 1990)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

5. Lease Designation and Serial No.

Federal UTU 18452 A

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

Knockdhu Unit

UTU 75040X

8. Well Name and No.

#1

9. API Well No.

43-037-31773

10. Field and Pool, or Exploratory Area

Wildcat

11. County or Parish, State

San Juan Co., UT

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Petral Exploration, L.L.C

3. Address and Telephone No. c/o McIlnay &amp; Associates, Inc.

2305 Oxford Lane, Casper, WY 82604

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1104' FNL &amp; 2473' FEL Sec. 33-T37S-R25E (SW NW NE) Surface

1114' FNL &amp; 2574' FWL Sec. 33-T37S-R25E (SE NE NW) BHL

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

## TYPE OF SUBMISSION

☐ Notice of Intent☒ Subsequent Report☐ Final Abandonment Notice

## TYPE OF ACTION

☐ Abandonment☐ Recompletion☐ Plugging Back☐ Casing Repair☐ Altering Casing☒ Other Surface Casing &

BOP Test

☐ Change of Plans☐ New Construction☐ Non-Routine Fracturing☐ Water Shut-Off☐ Conversion to Injection☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Drilled a 12 1/4" hole to 1800' and set 9 5/8", 36#/dr., J55, ST&amp;C casing. Cemented in place with 839 sks. cement.

Tested BOP and related equipment with Quadco as follows:

Replaced outside valve on manifold and started test. Tested casing to 2000 psig for 30 min. Tested manifold, BOP and valves to 3000 psig for 10 min. Tested annular preventer to 1500 psig for 10 min. Held okay.

Test witnessed by Mr. Jeff Brown, BLM.

14. I hereby certify that the foregoing is true and correct

Signed

Title

McIlnay &amp; Associates, Inc.

Consulting Engineers

Date

March 21, 1996

(This space for Federal or State office use)

Approved by

Title

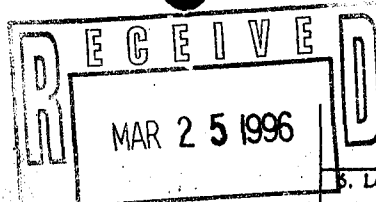
Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*See Instruction on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT



FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS OF OIL, GAS & MINERAL

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.

Federal UTU 18452 A

6. If Indian, Allottee or Tribe Name

NA

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Petral Exploration, L.L.C

3. Address and Telephone No. c/o McIlnay & Associates, Inc.

2305 Oxford Lane, Casper, WY 82604

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1104' FNL & 2473' FEL Sec. 33-T37S-R25E (SW NW NE) Surface

1114' FNL & 2574' FWL Sec. 33-T37S-R25E (SE NE NW) BHL

7. If Unit or CA, Agreement Designation

Knockdhu Unit

UTU 75040X

8. Well Name and No.

#1

9. API Well No.

43-037-31773

10. Field and Pool, or Exploratory Area

Wildcat

11. County or Parish, State

San Juan Co., UT

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent  
☒ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☒ Other Surface Casing &

- ☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

BOP Test

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Drilled a 12 1/4" hole to 1800' and set 9 5/8", 36#/dr., J55, ST&C casing. Cemented in place with 839 sks. cement.

Tested BOP and related equipment with Quadco as follows:

Replaced outside valve on manifold and started test. Tested casing to 2000 psig for 30 min. Tested manifold, BOP and valves to 3000 psig for 10 min. Tested annular preventer to 1500 psig for 10 min. Held okay.

Test witnessed by Mr. Jeff Brown, BLM.

14. I hereby certify that the foregoing is true and correct

Signed

*Edward W. McIlnay*

Title

McIlnay & Associates, Inc.  
Consulting Engineers

Date

March 21, 1996

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

# facsimile

## TRANSMITTAL

---

**to:** State of Utah, Division of Oil, Gas & Mining  
**fax #:** (801) 359-3940  
**re:** Petral Exploration, LLC, #1 ~~Horizontal~~ Unit  
SW NW NE Sec. 33-T37S-R25E, San Juan Co., UT  
API 43-037-31773, Lease No. UTU 18452A  
**date:** March 28, 1996  
**pages:** 6, including cover sheet.

Attached is the weekly progress report on the above referenced well.

If you have any questions, please give us a call.

Sharon

From the desk of...

Sharon Orr

McInay & Associates, Inc.  
2305 Oxford Lane  
Casper, WY 82604

307 265-4351  
Fax: 307 473-1218

Daily Drilling Reports  
Pctral Exploration, LLC

#1 Knockdhu Unit - UTU18452A

Page 5

**3-21-96** Continued

**Details:** Finished nipping up BOP. Started pressure test. Outside valve on manifold had to be replaced. Tested casing to 2000 psig for 30 min. Tested manifold, BOP and valves to 3000 psig for 10 min. Tested annular preventer to 1500 psig for 10 min. BOP testing witnessed by Jeff Brown from BLM. PU Monel DC, additional 6 1/2" DC's and weight pipe. TIH and tagged soft cement at 1785'. Started drilling @ 7 PM. 27 Hrs. after plug down. Drilled float, good hard cement and shoe. Started drilling and taking directional survey. WOB 25,000#, 75 RPM. Drilling with no problems.

**Geo.:** Chinele

**Costs:** Daily Cost: \$ 16,212 Cum. Cost. \$ 124,710 Rem. AFE: \$ 359,286

**3-22-96** 6 days from spud**Depth:** 2915' - made 890' in 21 1/2 Hrs. Cum. Drlg. Hrs. 84**Status:** Drilling w/no problems**Hours:** 21 1/2 Drilling

2 Survey

1/2 Rig Service

**BIT** 2, 8 3/4", STC, F2H, SN LE9601, In @ 1800' - made 1115' in 30.75 Hrs., Jets 11/12/B, 36.3'/Hr.

**Mud:** Wt. 8.4**Survey:** Field figures - not corrected

MD	ANGLE	DIRECTION	TVD	N/S	E/W	CLOSURE	DIRECTION
2050	.50	N27W	2049.71	18.24	-18.32	25.85	N45.1W
2204	1.00	N29E	2203.70	20.01	-17.97	26.89	N41.9W
2362	1.25	N35E	2361.67	22.63	-16.31	27.90	N35.8W
2518	1.25	N20W	2517.64	25.62	-15.92	30.16	N31.9W
2672	1.00	N2L	2671.61	28.54	-16.45	32.94	N30.0W
2829	0	N0E	2828.60	29.91	-16.40	34.11	N28.7W

**BHA:** Bit, 6" Monel DC, 19 - 6 1/2" DC = 561.55', 5 jts. wt. Pipe - 160.67, WOB 35,000  
RPM - 75, Pump - 1800 PSI, GPM 300, AVDP/AVDC - 124/161  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,

**Details:** Mud logging unit delivered to location. Drilling and taking direction surveys. No water flows or other problems.

**Geo.:** Cutler

**Costs:** Daily Cost: \$ 7,552 Cum. Cost. \$ 132,262 Rem. AFE: \$ 351,734

**3-23-96** 7 days from spud**Depth:** 3595' - made 680' in 22 Hrs. Cum. Drlg. Hrs. 106**Status:** Drilling w/no problems**Hours:** 22 Drilling

1 3/4 Survey

1/4 Rig Service

**BIT** 2, 8 3/4", STC, F2H, SN LE9601, In @ 1800' - made 1795' in 52.75 Hrs., Jets 11/12/B, 34'/Hr.

**Mud:** Wt. 8.4**Survey:** Field figures - not corrected

MD	ANGLE	DIRECTION	TVD	N/S	E/W	CLOSURE	DIRECTION
3017	1	S50E	3016.59	28.86	-15.14	32.59	N27.7W
3174	1.25	S78E	3173.56	27.62	-12.42	30.28	N24.2W
3326	1.50	S20E	3325.52	25.41	-10.12	27.35	N21.7W
3481	1.50	S53E	3480.47	22.28	-7.80	23.60	N19.3W

Daily Drilling Reports  
Petral Exploration, I.L.C.

#1 Knockdhu Unit - UTU18452A  
Page 6

**3-23-96** Continued

**BHA:** Bit, 6" Monel DC, 19 - 6 1/2" DC = 561.55', 5 jts. wt. Pipe = 160.67', WOB 35,000  
RPM - 75, Pump - 1800 PSI, GPM 300, AVDP/AVDC - 124/161  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,  
**Details:** Drilling and taking directional surveys. Possible minor water flow at 3202-3207'. Geologist and directional hands are on location. No hole problems.  
**Geo.:** Cutler  
**Costs:** Daily Cost: \$ 5,739 Cum. Cost. \$ 138,001 Rem. AFE: \$ 345,995

**3-24-96** 8 days from spud**Depth:** 3800' - made 205' in 7 3/4 Hrs. Cum. Drlg. Hrs. 113 3/4**Status:** Trip in hole with MWD and motor

**Hours:** 7 3/4 Drilling  
4 1/2 Tripping  
1/2 Survey  
3 1/4 Circulating  
3 1/2 BHA  
3 1/2 Rig up MWD  
1 Pick up motor and test

**BIT** 2, 8 3/4", STC, F2H, SN LE9601, In @ 1800' - out @ 3800' - made 2000" in 60.5 Hrs., Jets 11/12/B, 33'/Hr. Condition 4-E-In gauge  
3, 8 3/4", Reed EHP51A, SN CB 2945, In @ 3800', Jets 12-12-12

**Mud:** Wt. 8.4**Survey:** Field figures - not corrected

MD	ANGLE	DIRECTION	TVD	N-S	E-W	CLOSURE	DIRECTION
3667	.50	S63E	3666.44	21.88	-3.91	22.23	N10.1W
3746	.65	N49.6E	3745.9	25.5	-1.1	25.55	N2.44W

**BHA:** Bit, 6" 1 1/4" motor, float sub, x-o, UBHO, MWD DC, Monel x-o, Monel DC, 17-6 1/4" spiral DC's, jars, 3 - 6 1/4" spiral DC's, 5 - HWDP = 884.77' WOB 35,000  
RPM - 75, Pump - 1800 PSI, GPM 300, AVDP/AVDC - 124/181  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,

**SLM:** 3798.31, Board 3800 - 1.69 difference - no correction.

**Details:** Drilled to 3800' taking directional surveys. Notified Gary Torres, BLM that we had reached the KOP. TOH and ran multi-shot directional survey from 3800' to 1800' using Scientific Drilling. Corrected tie-on point data. Used multi-shot station @ 2846' for tie-on point. All future directional calculation made from this reference point. Laid down the 6 1/4" slick DC's. Picked up new BHA, mud motor, monel drill collars, directional drilling and steering tools and 6 1/4" spiral drill collars and jars. Tested MWD equipment below surface casing. TIH

**Geo.:** Cutler

**Costs:** Daily Cost: \$ 15,431 Cum. Cost. \$ 153,432 Rem. AFE: \$ 330,564

**3-25-96** 9 days from spud**Depth:** 4092' - made 292' in 22 1/4 Hrs. Cum. Drlg. Hrs. 135.5**Status:** Drilling with MWD

**Hours:** 22 1/4 Drilling  
1 3/4 Tripping

**BIT** 3, 8 3/4", Reed EHP51A, SN CB2945, In @ 3800' - made 292' in 22 1/4 Hrs., Jets 12-12-12

**Mud:** Wt. 8.4, Vis 33, WL 22, FC 2/32, PH 9.0, Wtr. 96.5, PV 4, YP 4, Gels 2/7.  
Alk. (Pf/Mf) .1/3. Solids 3.5, Sand Tr, Calcium 390, Chlorides 6800

**BHA:** Bit, 6" 1 1/4" motor, float sub, X-O, UBHO, MWD DC, Monel X-O, Monel DC, 17-6 1/4" spiral DC's, jars, 3-6 1/4" spiral DC's, 5-HWDP - 884.77' WOB 15 - 30,000#  
RPM - 120, Pump - 1100 PSI, GPM 300, AVDP/AVDC - 124/181  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,

**Details:** Finished TIH w/MWD equipment. Oriented the tools and began drilling using MWD equipment to monitor the hole direction and deviation. No hole problems except for minor water flow causing high chlorides in the mud system.

**Geo.:** Cutler

Daily Drilling Reports  
Petal Exploration, L.L.C.

#1 Knockdhu Unit - UTU18452A

Page 7

**3-25-96** Continued

Survey: Field figures - not corrected

MD	ANGLE	DIRECTION	TVD	N/S	E/W	CLOSURE	DIRECTION
3773	.65	N64.83E	3772.9	25.66	-0.86	25.67	N1.92W
3804	.8	N49.8E	3803.9	25.87	-0.54	25.88	N1.20W
3835	.5	N37.4E	3834.89	26.12	-0.30	26.12	N0.66W
3864	.8	N17.0E	3863.89	26.41	-0.16	26.41	N0.35W
3894	.5	N11.3W	3893.89	26.74	-0.12	26.74	N0.26W
3923	.6	N41.9W	3922.89	26.98	-0.25	26.98	N0.53W
3956	1.2	N36.8W	3955.88	27.38	-0.57	27.39	N1.19W
3987	1.5	N50.7W	3986.88	27.90	-1.08	27.52	N2.22W
4020	1.3	N86.6W	4019.87	28.19	-1.79	28.25	N3.63W
4049	2.0	S87.4W	4048.85	28.19	-2.62	28.31	N5.27W

Costs: Daily Cost: \$ 26,836 Cum. Cost. \$ 180,268 Rem. AFE: \$ 303,728

**3-26-96** 10 days from spud

Depth: 4398' - made 306' in 24 Hrs. Cum. Drlg. Hrs. 159.5

Status: Drilling with MWD

Hours: 24 Drilling

Bit: 3, 8 3/4", Reed EHP51A, SN CB2945, In @ 3800' - made 598' in 46 1/4 Hrs., Jets 12-12-12

Mud: Wt. 8.8, Vis 34, WL 11, FC 2/32, PH 10.5, Wtr. 96.5, PV 6, YP 6, Gels 2/7.  
Alk. (Pf/Mf) 6/1.9. Solids 3.5, Sand 0, Calcium 140, Chlorides 3300

Survey: Field figures - not corrected

MD	ANGLE	DIRECTION	TVD	N/S	E/W	CLOSURE	DIRECTION
4080	2.4	N80.6W	4079.83	28.27	-3.80	28.52	N7.66W
4110	2.1	N85.1W	4109.81	28.42	-4.97	28.85	N9.92W
4140	2.2	S88.6W	4139.79	28.45	-6.09	29.09	N12.08W
4171	2.3	S79.0W	4170.76	28.32	-7.30	29.25	N14.45W
4201	2.9	S82.6W	4200.73	28.11	-8.64	29.41	N17.09W
4232	3.0	S79.4W	4231.69	27.86	-10.22	29.68	N20.14W
4262	2.9	S71.6W	4261.65	27.47	-11.71	29.86	N23.08W
4292	3.5	S68.9W	4291.61	26.90	-13.28	30.00	N26.27W
4323	4.1	S63.9W	4322.54	26.08	-15.16	30.17	N30.17W

BHA: Bit, 6" 1 1/4" motor, float sub, X-O, UBHO, MWD DC, Monel X-O, Monel DC, 17-6 1/4" spiral DC's, jars, 3-6 1/4" spiral DC's, 5-HWDP - 884.77' WOB 18 - 20,000#

RPM - 120, Pump - 1200 PSI, GPM 300, AVDP/AVDC - 124/181

Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,

Details: Drilling w/MWD. No hole problems. Building angle and direction.

Geo.: Cutler, interbedded sand. shale and silt. Some anhydrite in the redbed.

Costs: Daily Cost: \$ 17,047 Cum. Cost. \$ 197,315 Rem. AFE: \$ 286,681



Daily Drilling Reports  
Pctral Exploration, LLC

#1 Knockdhu Unit - UTU18452A

Page 8

**3-27-96** 11 days from spud  
**Depth:** 4600' - made 202' in 17 Hrs. Cum. Drlg. Hrs. 176.6  
**Status:** Drilling with MWD, building angle.  
**Hours:** 17 Drilling  
 6 1/4 Tripping  
 3/4 Survey  
**BIT:** 3, 8 3/4", Reed EHP51A, SN CB2945, In @ 3800' - out @ 4460' - made 660' in 52 1/4 Hrs., Jets 12-12-12, 12.6'/Hr., T4-B2-1 out of gauge  
 4, 8 3/4", Reed, EHP51A, SN U12272, In @ 4460' - made 140' in 11 Hrs., Jets 12-12-12 12.7'/Hr.  
**Mud:** Wt. 8.9, Vis 34, WL 10, FC 2/32, PH 10.5, Wtr. 95, PV 8, YP 6, Gels 2/4 Alk. (Pf/Mf) 5/1.1 Solids 4.2, Sand tr, Calcium 180, Chlorides 3300

**Survey:** Field Figures - not corrected

MD	ANGLE	DIRECTION	TVD	N/S	E/W	CLOSURE	DIRECTION
4355	4.3	S67.2W	4354.45	25.11	-17.30	30.49	N34.57W
4386	4.3	S86.1W	4385.37	24.58	-19.53	31.39	N38.47W
4417	4.4	S75.0W	4416.28	24.19	-21.84	32.59	N42.07W
4449	5.5	S75.8W	4448.16	23.50	-24.51	33.96	N46.21W
4480	5.9	S76.0W	4479.00	22.05	-27.33	35.12	N51.10W
4512	6.0	S72.3W	4510.83	21.15	-30.52	37.13	N55.28W
4544	6.8	S74.1W	4542.63	20.12	-33.94	39.46	N59.34W

**BHA:** Bit, 6" 1 1/2" motor, float sub, X-O, UBHO, MWD DC, Monel X-O, Monel DC, 17-6 1/4" spiral DC's, jars, 3-6 1/4" spiral DC's, 5-HWDP - 884.21' WOB 15 - 30,000#  
 RPM - 120, Pump - 1200 PSI, GPM 300, AVDP/AVDC - 124/181  
 Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,

**Details:** Drilled to 4460'. Tripped for new bit and new motor. TIH w/ 1 1/2" setting on new adjustabel motor. Reamed the last 2 Jts. to bottom. Hole is in good shape. Checked MWD equipment. Drilling ahead with MWD.

**Geo.:** Honaker Trail, top estimated at 4651'.

**Costs:** Daily Cost: \$ 24,156 Cum. Cost. \$ 221,471 Rem. AFE: \$ 262,525

**3-28-96** 12 days from spud  
**Depth:** 4908' - made 308' in 24 Hrs. Cum. Drlg. Hrs. 200.5  
**Status:** Circulating and conditioning hole and WOO  
**Hours:** 24 Drilling  
**BIT:** 4, 8 3/4", Reed, EHP51A, SN U12272, In @ 4460' - made 448' in 35 Hrs., Jets 12-12-12 12.8'/Hr.  
**Mud:** Wt. 8.9, Vis 33, WL 12, FC 2/32, PH 10, Wtr. 95.8, PV 6, YP 4, Gels 2/4 Alk. (Pf/Mf) 4/9. Solids 4.2, Sand tr, Calcium 500, Chlorides 5200  
**Survey:** See attached  
**BHA:** Bit, 6" 1 1/2" motor, float sub, X-O, UBHO, MWD DC, Monel X-O, Monel DC, 17-6 1/4" spiral DC's, jars, 3-6 1/4" spiral DC's, 5-HWDP - 884.21' WOB 15 - 30,000#  
 RPM - 120, Pump - 1200 PSI, GPM 300, AVDP/AVDC - 124/181  
 Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,

**Details:** Drilling with MWD equipment. Maximum DLS last 24 Hrs. was 2.5"/100'. Drilling break from 4867 - 4902'. Broke from 5-6 m/ft. good gas show. Circulating and WOO for DST. Proposed interval 4866 - 4902'.

**Geo.:** Honaker Trail. Good show of gas 4867 - 4902'.

**Costs:** Daily Cost: \$ 15,277 Cum. Cost. \$ 236,748 Rem. AFE: \$ 247,248

Daily Drilling Reports  
Petral Exploration, LLC

#1 Knockdhu Unit - UTU18452A

Page 9

**3-29-96**

13 days from spud

**Depth:** 4908' - made 0' in 24 Hrs. Cum. Drlg. Hrs. 200.5**Status:** DST #1 - 4866 - 4908' Honker Trail**Hours:**  
9 3/4 Tripping  
1 1/4 Wash & ream  
5 1/2 Mix mud  
4 Circulating  
2 Pick up test tools  
1 Cut drilling line  
1/2 Testing**BIT:** 4, 8 3/4", Reed, EHP51A, SN U12272, In @ 4460' - out @ 4908' - made 448' in 35 Hrs., Jets 12-12-12, T2-BE-In gauge, 12'/Hr.**Mud:** Wt. 9.9, Vis 38, WL 10, FC 2/32, PH 9.5, Wtr. 92, PV 13, YP 9, Gels 2/10 Alk. (Pf/Mf) .3/.5. Solids 8, Sand tr, Calcium 800, Chlorides 7200**Survey:** None**BHA:** DST Tools

RPM - 40, Pump - 1200 PSI, GPM - 300, AVDP/AVDC - 130/180

Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,

**SLM:** Board 4908' - Talley 4909.82' - 1.82 difference - no correction.

**Details:** Circulated and conditioned mud while WOO. Had some water flow, source unknown. Building weight to about 9.9#/gal. Stopped the water flow and gas readings dropped to about 16 units of total gas. Called for DST #1 in Honker Trail. TOH and SLM. Cut and slipped drilling line. Stood monel DC's in derrick. Picked up bit and near-bit reamer and TIH to circulate and condition for DST. Washed and reamed from 4760'-TD. Acted like ledges rather than bridges, some torque while reaming. Set test tank and dug flare pit. TOH and laid down jars. PU Schlumberger test tools and TIH for DST #1. Opened the tool at 5:45 AM. Opened with strong blow, bottom of bucket in 1 min., 4.5 psig in 15 min. Gained 35,000# string weight in 15 min. Shut tool in for first shut-in at 6 AM.

**Geo.:** Honker Trail. DST Interval 4866' - 4908'.**Costs:** Daily Cost: \$ 20,400 Cum. Cost. \$ 256,788 Rem. AFE: \$ 227,208

Form 3160-5  
(June 1990)

**CONFIDENTIAL**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

**SUBMIT IN TRIPLICATE**

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

5. Lease Designation and Serial No.

Federal UTU 18452 A

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation  
Knockdhu Unit

UTU 75040X

8. Well Name and No.  
#1

9. API Well No.  
43-037-31773

10. Field and Pool, or Exploratory Area  
Wildcat

11. County or Parish, State  
San Juan Co., UT

1. Type of Well  
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator  
Petral Exploration, L.L.C

3. Address and Telephone No. c/o McIlnay & Associates, Inc.  
2305 Oxford Lane, Casper, WY 82604

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1104' FNL & 2473' FEL Sec. 33-T37S-R25E (SW NW NE) Surface

1114' FNL & 2574' FWL Sec. 33-T37S-R25E (SE NE NW) BHL

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent  
☐ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☐ Other

- ☒ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

It is proposed to change the production casing cementing program as presented by the approved NTL-6 to the following program:

Preflush - 20 Bbls. mud flush

Scavenger Cement - 50 sks Pox-mix A(70)

Production Cement

220 sks, 50/50 Standard Pozmix (70) w/5% Micro Bgnd M, 2% Halliburton Gel,  
0.5% Halad-344 & 0.25#/sk Flocele. (1.45 ft.<sup>3</sup>/sk, 13.50#/gal).

Note: Actual slurry volume to be recalculated as per caliper log results.

14. I hereby certify that the foregoing is true and correct

Signed

Title

McIlnay & Associates, Inc.  
Consulting Engineers

Date March 28, 1996

(This space for Federal or State office use)

Approved by  
Conditions of approval, if any:

Title

Date

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*See Instruction on Reverse Side

# facsimile

## TRANSMITTAL

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**to:** State of Utah, Division of Oil, Gas & Mining  
**fax #:** (801) 359-3940  
**re:** Petral Exploration, LLC, #1 Horseshoe Unit  
SW NW NE Sec. 33-T37S-R25E, San Juan Co., UT  
API 43-037-31773, Lease No. UTU 18452A  
**date:** April 5, 1996  
**pages:** 6, including cover sheet.

Attached is the weekly progress report on the above referenced well.

If you have any questions, please give us a call.

Sharon

From the desk of...

Sharon Orr

McIlnay & Associates, Inc.  
2305 Oxford Lane  
Casper, WY 82604

307 765 4351  
Fax: 307 473-1218

Daily Drilling Reports  
Petral Exploration, LLC

#1 Knockdhu Unit - UTU18452A  
Page 9

**3-29-96** 13 days from spud  
**Depth:** 4908' - made 0' in 24 Hrs. Cum. Drlg. Hrs. 200.5  
**Status:** DST #1 - 4866 - 4908' Honaker Trail  
**Hours:** 9 3/4 Tripping  
 1 1/4 Wash & ream  
 5 1/2 Mix mud  
 4 Circulating  
 2 Pick up test tools  
 1 Cut drilling line  
 1/2 Testing  
**BIT:** 4, 8 3/4", Reed, EHP51A, SN U12272, In @ 4460' - out @ 4908' - made 448' in 35 Hrs., Jets 12-12-12, T2-BE-In gauge, 12'/Hr.  
**Mud:** Wt. 9.9, Vis 38, WL 10, FC 2/32, PH 9.5, Wtr. 92, PV 13, YP 9, Gels 2/10 Alk. (Pf/Mf) .3/5. Solids 8, Sand tr, Calcium 800, Chlorides 7200  
**Survey:** None  
**BHA:** DST Tools  
 RPM - 40, Pump - 1200 PSI, GPM - 300, AVDP/AVDC - 130/180  
 Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,  
**SLM:** Board 4908' - Talley 4909.82' - 1.82 difference - no correction.  
**Details:** Circulated and conditioned mud while WOO. Had some water flow, source unknown. Building weight to about 9.9#/gal. Stopped the water flow and gas readings dropped to about 16 units of total gas. Called for DST #1 in Honker Trail. TOH and SLM. Cut and slipped drilling line. Stood monel DC's in derrick. Picked up bit and near-bit reamer and TIH to circulate and condition for DST. Washed and reamed from 4760'-TD. Acted like ledges rather than bridges, some torque while reaming. Set test tank and dug flare pit. TOH and laid down jars. PU Schlumberger test tools and TIH for DST #1. Opened the tool at 5:45 AM. Opened with strong blow, bottom of bucket in 1 min., 4.5 psig in 15 min. Gained 35,000# string weight in 15 min. Shut tool in for first shut-in at 6 AM.  
**Geo.:** Honaker Trail. DST Interval 4866' - 4908'.  
**Costs:** Daily Cost: \$ 20,400 Cum. Cost. \$ 256,788 Rem. AFE: \$ 227,208  
**3-30-96** 14 days from spud  
**Depth:** 5063' - made 155' in 10 3/4 Hrs. Cum. Drlg. Hrs. 211.5  
**Status:** Tripping to change BHA  
**Hours:** 10 3/4 Drilling  
 6 1/4 Tripping  
 5 3/4 Testing  
 1 1/4 Lay down test tools  
**BIT:** 5, 8 3/4", Reed, EHP51A, SN EX4006, In @ 4908' - made 155' in 10 3/4 Hrs., Jets 12-12-12,  
**Mud:** Wt. 9.9, Vis 49, WL 6.0, FC 1/32, PH 11, Wtr. 92, PV 16, YP 13, Gels 3/11 Alk. (Pf/Mf) .9/1.6. Solids 8, Sand tr, Calcium 140, Chlorides 9300  
**Survey:** See attached report  
**BHA:** Bit, 1 1/2" adjustable motor, float sub, 7" stabilizer, UBHO, MWD DC, 8 1/2" stabilizer, Monel X-O, Monel DC, 17-6 1/4" spiral DC's, jars, 3-6 1/4" spiral DC's, 5-HWDP - 889.76' WOB 15 - 30,000#, RPM - 120, Pump - 1600 PSI, GPM 300, AVDP/AVDC - 130/181  
 Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,  
**Details:** Finished DST #1. Pulled to fluid and reverse 58 Bbls. of mud cut salt water and salt water. laid down DST tools. PU BHA and TIH. Oriented MWD tools and started drilling ahead using MWD equipment. Built angle to 14.5 ° and wiped out doglegs. TOH to lay down IBS between motor and Monel DC's in order to increase build rate.  
**Geo.:** Honaker Trail. No drilling breaks or shows.  
**Costs:** Daily Cost: \$ 26,705 Cum. Cost. \$ 283,493 Rem. AFE: \$ 227,208

Daily Drilling Reports  
Petral Exploration, I.L.C.

#1 Knockdhu Unit - UTU18452A  
Page 10

**DST #1, Honaker Trail, 4866' - 4908' - 42'**

IH 2519 psig  
IF 402 - 1298 psig 15 min. Opened w/strong blow, bottom of bucket in 1 min.  
4 1/2 psig on gauge in 15 min.  
ISI 2366 psig 30 min.  
FF 1417 to 2256 psig 60 min. Opened w/strong blow to bottom of bucket (14"). Built  
to 3 psig in 15 min. Dec. to 3 3/4 oz./sq. in. in 1 Hr.  
FSI 2403 psig 120 min.  
FH 2479 psig  
BHT 119° F

**Recovery:** 4600' fluid. 3 Bbls. 86% water, 14% drilling mud. 15 Bbls. 90% water, 10% drilling  
mud 40 Bbls. salt water, 112,000 PPM chlorides, RW 0.1 @ 68°F. No gas to surface.

**Sample Chamber:** .04 cu. ft. gas; 2450 cc water, Rw 0.1 at 68°. No oil show.

**Remarks:** No oil recovery. No gas to surface. Packers held throughout the test.

**3-31-96** 15 days from spud

**Depth:** 5110' - made 47' in 7 Hrs. Cum. Drlg. Hrs. 218 1.4

**Status:** Changing MWD equipment via wireline and testing same.

**Hours:** 7 Drilling  
11 1/2 Tripping  
1 3/4 Rig Repair - Drum Chain  
2 1/2 Change BHA  
1 1/4 Change MWD

**BIT:** 5, 8 3/4", Reed, EHP51A, SN EX4006, In @ 4908' - made 202' in 17 3/4 Hrs., Jets 12-12-12,  
11.38'/Hr.

**Mud:** Wt. 9.8, Vis 40, WL 7, FC 1/32, PH 11, Wtr. 93, PV 14, YP 12, Gels 3/10  
Alk. (Pf/Mf) 8/1.4. Solids 7, Sand tr, Calcium 160, Chlorides 9900

**Survey:** See attached report

**BHA:** Bit, 1 1/2" adjustable motor, float sub, 7" stabilizer, UBHO, MWD DC, 8 1/2" stabilizer, Monel  
X-O, Monel DC, 17-6 1/4" spiral DC's, jars, 3-6 1/4" spiral DC's, 5-HWDP - 889.76' WOB  
15 - 30,000#, RPM - 120, Pump - 1400 PSI, GPM 300, AVDP/AVDC - 130/181  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,

**Details:** Finished trip. Oriented MWD equipment and started to drill. Drilled to 5098' and MWD  
equipment failed. Source of failure unknown - started receiving allot of noise from down hole,  
maybe the motor was failing. TOH. Motor seemed okay. Changed out motor and checked  
MWD equipment and TIH. Reran the same bit. Started drilling and pulser unit on MWD  
failed. TOH to the vertical section of the hole above the KOP. Rigged up wireline tools and  
fished MWD. Changed out MWD and ran new unit into the string. Tested MWD - okay.

**Geo.:** Honaker Trail

**Costs:** Daily Cost: \$ 17,283 Cum. Cost: \$ 300,776 Rem. AFE: \$ 183,220

**4-1-96** 16 days from spud

**Depth:** 5420' - made 310' in 23 Hrs. Cum. Drlg. Hrs. 241.25

**Status:** Drilling with no problems

**Hours:** 23 Drilling  
1/2 Tripping  
1/2 Change MWD

**BIT:** 5, 8 3/4", Reed, EHP51A, SN EX4006, In @ 4908' - made 512' in 40 3/4 Hrs., Jets 12-12-12,  
12.5'/Hr.

**Mud:** Wt. 9.7, Vis 39, WL 8, FC 2/32, PH 11.5, Wtr. 93, PV 14, YP 11, Gels 3/11  
Alk. (Pf/Mf) 1/2.2. Solids 7, Sand tr, Calcium 80, Chlorides 9900

**Survey:** See attached report

**BHA:** Bit, 1 1/2" adjustable motor, float sub, UBHO, MWD DC, 8 1/2" stabilizer, Monel X-O,  
Monel DC, 17-6 1/4" spiral DC's, jars, 3-6 1/4" spiral DC's, 5-HWDP - 887.33'  
WOB 15 - 35,000#, RPM - 120, Pump - 1300 PSI, GPM 300, AVDP/AVDC - 130/181  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,

**Details:** TIH, oriented MWD and started drilling. Built angle to 16.8 @ 5175' MD. Turned the hole  
to start dropping angle and drift a little to the North. Drilling w/no problems.

**Geo.:** LaSal

**Costs:** Daily Cost: \$ 16,228 Cum. Cost: \$ 317,004 Rem. AFE: \$ 166,992

Daily Drilling Reports  
Petral Exploration, I.I.C.#1 Knockdhu Unit - UTU18452A  
Page 11

**4-2-96** 17 days from spud  
**Depth:** 5700' - made 280' in 22 Hrs. Cum. Drlg. Hrs. 263.25  
**Status:** Circulating samples at core point  
**Hours:** 22 Drilling  
           2 Circulating  
**BIT:** 5, 8 3/4", Reed, EHP51A, SN EX4006, In @ 4908' - made 792' in 62 3/4 Hrs., Jets 12-12-12, 12.6'/Hr.  
**Mud:** Wt. 9.9, Vis 41, WL 8.0, FC 1/32, PH 11.5, Wtr. 91, PV 18, YP 16, Gels 3/17 Alk. (Pf/Mf) .9/1.6 Solids 9, Sand tr, Calcium 180, Chlorides 9950  
**Survey:** See attached report  
**BHA:** Bit, 1 1/2" adjustable motor, float sub, UBHO, MWD DC, 8 1/2" stabilizer, Monel X-O, Monel DC, 17-6 1/4" spiral DC's, jars, 3-6 1/4" spiral DC's, 5-HWDP - 887.33' WOB 15 - 35,000#, RPM - 120, Pump - 1500 PSI, GPM 300, AVDP/AVDC - 130/181 Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,  
**Details:** Jimmie Thompson w/State of Utah visited location. Gave him depth and operation. Core hand inspected his equipment and is in Blanding. Drilled w/MWD and circulated samples. Drilled to 5700', core point, and circulated samples. Good drilling break and gas shows. Mike Wynne and Bob Coskey are on location and picked core point.  
**Geo.:** Ismay  
**Costs:** Daily Cost: \$ 12,251 Cum. Cost. \$ 329,255 Rem. AFE: \$ 154,741

**4-3-96** 18 days from spud  
**Depth:** 5701' - made 1' in 22 Hrs. Cum. Drlg. Hrs. 263.75  
**Status:** Coring Upper Ismay  
**Hours:** 1/2 Drilling  
           2 1/2 Circulating  
           15 1/2 Tripping  
           3 1/2 Wash & ream  
           1 Cut drilling line  
           1 BHA  
**BIT:** 5, 8 3/4", Reed, EHP51A, SN EX4006, In @ 4908' - out @ 5700' - made 792' in 62 3/4 Hrs., Jets 12-12-12, 12.6'/Hr. T4-BE-In gauge  
           6, Core 7 27/32" Chris. 324, SN 1900310, In @ 5700' - made 1' in 1 Hr. Nozzle 0.70  
**Mud:** Wt. 9.8, Vis 43, WL 8.5, FC 2/32, PH 11.5, Wtr. 91, PV 19, YP 16, Gels 4/18 Alk. (Pf/Mf) 1.0/2.1 Solids 9, Sand tr, Calcium 160, Chlorides 9800  
**Survey:** None  
**BHA:** 7 27/32 core head, 60' core barrel, jars, x-o, 20 - 6 1/4" spiral DC's, 5-HWDP - 839.20' WOB 15 - 25,000#, RPM - 90, Pump - 500 PSI, GPM 230, AVDP/AVDC - 97/152 Pump #1 - 6 x 8, 65 SPM Pump #2 - 6 x 8,  
**Details:** TOH. Laid down directional equipment. Cut and slipped the drilling line. PU bit, junk sub, near-bit reamer, 2 DC's, string reamer and THH to 4908'. Washed and reamed to TD at 5700'. Circulated and conditioned the hole. Added 10 sacks of Magnafiber to pretreat for seepage in the Ismay. TOH. Picked up core barrel and THH. Began coring Upper Ismay Mound. Jeff Brown and Kent Walters w/BLM inspected the operations on 4/2/96. All is okay. Coring w/no problems at about 4'/min.  
**Geo.:** Upper Ismay Mound  
**Costs:** Daily Cost: \$ 23,158 Cum. Cost. \$ 352,413 Rem. AFE: \$ 131,583

**4-4-96** 19 days from spud  
**Depth:** 5823' - made 1' in 22 Hrs. Cum. Drlg. Hrs. 263.75  
**Status:** Trip in hole to ream core interval 5700 - 5823'  
**Hours:** 11 Coring  
           9 1/2 Tripping  
           3 1/2 Lay down core  
**BIT:** 6, Core 7 27/32" Chris. 324, SN 1900310, In @ 5700' - out @ 5823' - made 123' in 11 Hrs. Nozzle 0.70, 11.2'/hr., Condition good  
           7, 8 3/4", Sec. S44GF, SN 653833, In @ 5823, Jets 13-13-13  
**Mud:** Wt. 9.9, Vis 41, WL 9.5, FC 2/32, PH 11, Wtr. 90, PV 19, YP 18, Gels 5/21 Alk. (Pf/Mf) .9/1.5 Solids 10, Sand tr, Calcium 200, Chlorides 10100  
**Survey:** None

Daily Drilling Reports  
Petal Exploration, LLC

#1 Knockdhu Unit - UTU18452A

Page 12

**4-4-96 Continued**

**BHA:** Bit, junk sub, NB IBS, 2-6 1/4" spiral DC, IBS, 15-6 1/4" spiral DC, jars, 3-6 1/4" spiral DC, 5-HWDP = 806.05'

WOB 15-25,000#, RPM - 75-80, Pump - 1200 PSI, GPM 300, AVDP/AVDC - 130/196  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,

**Details:** Cored the Upper Ismay Mound. Core #1 5700 - 5761', recovered 60.5' of core. Core #2 5761 - 5823' - recovered 62' of core. See attached geological report. Core appears to be tight w/anhydrite filling the porosity. No DST called for. Laid down the coring equipment and stood the core barrel in the derrick. Picked up reamers and TIH to ream the cored interval.

**Geo.:** Hovenweep

**Costs:** Daily Cost: \$ 11,895 Cum. Cost. \$ 364,308 Rem. AFE: \$ 119,688

**4-5-96 20 days from spud**

**Depth:** 5870' - made 47' in 9 1/2 Hrs. Cum. Drlg. Hrs. 284.25

**Status:** Drilling with no problems

**Hours:** 9 1/2 Drilling  
5 1/2 Tripping  
9 Wash & ream

**BIT:** 7, 8 3/4", Sec. S44GF, SN 653833, In @ 5823 - out @ 5852' - made 29' in 5.5 Hrs. Drilling and 9.5 Hrs. Reaming, Jets 13-13-13, T6-B4-GIn, 5.3'/Hr.

8, 8 3/4", (RR #4) Reed EHP51A, U12272, In @ 5852' - made 18' in 3.5 Hrs., Jets 12-13-13, 5.1'/Hr.

**Mud:** Wt. 9.9, Vis 44, WL 8.8, FC 2/32, PH 11.5, Wtr. 89, PV 20, YP 17, Gels 4/19  
Alk. (Pf/Mf) 1.0/2.3 Solids 11, Sand tr, Calcium 200, Chlorides 10100

**Survey:** None

**BHA:** Bit, junk sub, NB IBS, 2-6 1/4" spiral DC, IBS, 15-6 1/4" spiral DC, jars, 3-6 1/4" spiral DC, 5-HWDP = 806.05'

WOB 40,000#, RPM - 60, Pump - 1300 PSI, GPM 300, AVDP/AVDC - 130/196  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,

**Details:** Finished TIH. Washed and reamed 5700 - 5823' (cored interval). Drilled to 5852' and tripped for bit. Drilling in anhydrite w/no hole problems. Bringing mud weight up to 10.9 to 11.0#/gal. Changed out the Barite bulk tanker due to a faulty valve. No charge for trucking.

**Geo.:** Ismay Anhydrite

**Costs:** Daily Cost: \$ 8,967 Cum. Cost. \$ 373,275 Rem. AFE: \$ 110,721



# facsimile

## TRANSMITTAL

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**to:** State of Utah, Division of Oil, Gas & Mining  
**fax #:** (801) 359-3940  
**re:** Petral Exploration, LLC, #1 Horseshoe Unit  
SW NW NE Sec. 33-T37S-R25E, San Juan Co., UT  
API 43-037-31773, Lease No. UTU 18452A  
**date:** April 12, 1996  
**pages:** 6, including cover sheet.

Attached is the weekly progress report on the above referenced well.

If you have any questions, please give us a call.

Sharon

From the desk of...

Sharon Orr

McIlnay & Associates, Inc.  
2305 Oxford Lane  
Casper, WY 82604

307 265-4351  
Fax: 307 473-1218

Daily Drilling Reports  
Petral Exploration, I.I.C.

#1 Knockdhu Unit - UTU18452A  
Page 12

**4-4-96 Continued**

**BHA:** Bit, junk sub, NB IBS, 2-6 1/4" spiral DC, IBS, 15-6 1/4" spiral DC, jars, 3-6 1/4" spiral DC, 5-HWDP = 806.05'  
WOB 15-25,000#, RPM - 75-80, Pump - 1200 PSI, GPM 300, AVDP/AVDC - 130/196  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,  
**Details:** Cored the Upper Ismay Mound. Core #1 5700 - 5761', recovered 60.5' of core. Core #2 5761 - 5823' - recovered 62' of core. See attached geological report. Core appears to be tight w/anhydrite filling the porosity. No DST called for. Laid down the coring equipment and stood the core barrel in the derrick. Picked up reamers and TIH to ream the cored interval.  
**Geo.:** Hovenweep  
**Costs:** Daily Cost: \$ 11,895 Cum. Cost. \$ 364,308 Rem. AFE: \$ 119,688

**4-5-96 20 days from spud**

**Depth:** 5870' - made 47' in 9 1/2 Hrs. Cum. Drlg. Hrs. 284.25  
**Status:** Drilling with no problems  
**Hours:** 9 1/2 Drilling  
5 1/2 Tripping  
9 Wash & ream  
**BIT:** 7, 8 3/4", Sec. S44GF, SN 653833, In @ 5823 - out @ 5852' - made 29' in 5.5 Hrs. Drilling and 9.5 Hrs. Reaming, Jets 13-13-13, T6-B4-Gln, 5.3'/Hr.  
8, 8 3/4", (RR #4) Reed EHP51A, U12272, In @ 5852' - made 18' in 3.5 Hrs., Jets 12-13-13, 5.1'/Hr.  
**Mud:** Wt. 9.9, Vis 44, WL 8.8, FC 2/32, PH 11.5, Wtr. 89, PV 20, YP 17, Gels 4/19  
Alk. (Pf/Mf) 1.0/2.3 Solids 11, Sand tr, Calcium 200, Chlorides 10100  
**Survey:** None  
**BHA:** Bit, junk sub, NB IBS, 2-6 1/4" spiral DC, IBS, 15-6 1/4" spiral DC, jars, 3-6 1/4" spiral DC, 5-HWDP = 806.05'  
WOB 40,000#, RPM - 60, Pump - 1300 PSI, GPM 300, AVDP/AVDC - 130/196  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,  
**Details:** Finished TIH. Washed and reamed 5700 - 5823' (cored interval). Drilled to 5852' and tripped for bit. Drilling in anhydrite w/no hole problems. Bringing mud weight up to 10.9 to 11.0#/gal. Changed out the Barite bulk tanker due to a faulty valve. No charge for trucking.  
**Geo.:** Ismay Anhydrite  
**Costs:** Daily Cost: \$ 8,967 Cum. Cost. \$ 373,275 Rem. AFE: \$ 110,721

**4-6-96 21 days from spud**

**Depth:** 5977' - made 107' in 15 1/2 Hrs. Cum. Drlg. Hrs. 299.75  
**Status:** Trip for core barrel  
**Hours:** 15 1/2 Drilling  
5 1/2 Tripping  
1 1/2 Circulating  
1/2 BHA  
1 Cut drilling line  
**BIT:** 8, 8 3/4", (RR #4) Reed EHP51A, U12272, In @ 5852' - out @ 5977' - made 19' in 19 Hrs  
Jets 12-13-13, T4-B2-G1, 6.6'/Hr.  
9, 7 27/32", Chris. Core 325, SN 1900310, In @ 5977', Nozzel 0.70  
**Mud:** Wt. 10.9, Vis 42, WL 9.5, FC 2/32, PH 11, Wtr. 87, PV 22, YP 16, Gels 4/19  
Alk. (Pf/Mf) 1.1/2.3 Solids 13, Sand tr, Calcium 280, Chlorides 11,100  
**Survey:** None  
**BHA:** 7 27/32 core head, 60' core barrel, jars, x-o, 20 - 6 1/4" spiral DC's, 5-HWDP - 839.20'  
WOB 10 - 15,000#, RPM - 95, Pump - 500 PSI, GPM 275, AVDP/AVDC - 96/146  
Pump #1 - 6 x 8, 78 SPM Pump #2 - 6 x 8,  
**Details:** Drilled to 5977', Increased mud weight to 10.9-11.0 ppg while drilling. Circulated samples at 5977'. TOH for core #3. Changed BHA. TIH w/core barrel.  
**Geo.:** Lower Desert Creek Mound 5973'.  
**Costs:** Daily Cost: \$ 13,158 Cum. Cost. \$ 386,433 Rem. AFE: \$ 97,563

Daily Drilling Reports  
Petal Exploration, LLC

#1 Knockdhu Unit - UTU18452A  
Page 13

**4-7-96** 22 days from spud  
**Depth:** 6018' - made 41' in 6 Hrs. Coring Cum. Drlg. Hrs. 305.75  
**Status:** DST #2, Lower Desert Creek  
**Hours:** 6 Coring  
 5 3/4 Tripping  
 1 3/4 Circulating  
 2 Lay down core  
 4 1/2 Waiting On DST  
 1 Testing  
 1 Time change  
 2 Pick up Test Tools  
**Bit:** 9, 7 27/32", Chris. Core 325, SN 1900310, In @ 5977' - out @ 6018' - made 41' in 6 Hrs., Nozzel 0.70, Condition Good, 6.8'/Hr.  
**Mud:** Wt. 10.9, Vis 44, WL 8, FC 2/32, PH 11, Wtr. 87, PV 23, YP 20, Gels 5/21 Alk. (Pf/Mf) .9/2.1 Solids 13, Sand tr, Calcium 180, Chlorides 11,000  
**BHA:** DST Tools  
 WOB 10 - 15,000#, RPM - 95, Pump - 600 PSI, GPM 275, AVDP/AVDC - 96/146  
 Pump #1 - 6 x 8, 75 SPM Pump #2 - 6 x 8,  
**Details:** Cored Lower Desert Creek Mound from 5977' - 6018' - 41'. Recovered 38.5' of core. Laid down the core barrel. Shipped the core to Casper. Waited on test tools. Picked up test tools and TIH for DST #2, Lower Desert Creek 5974 5 - 6018' 1st flow opened w/1 1/2", increased to 2" in 10 min., decreased to 1/2" after 20 min. and remained steady at 1/2" after 30 min. Shut tool in for initial build-up.  
**Geo.:** Chimney Rock  
**Costs:** Daily Cost: \$ 17,999 Cum. Cost. \$ 404,432 Rem. AFE: \$ 79,564

**4-8-96** 23 days from spud  
**Depth:** 6047' - made 29' in 4 1/2 Hrs. Cum. Drlg. Hrs. 310.25  
**Status:** Trip out to log  
**Hours:** 4 1/2 Testing  
 5 1/2 Tripping  
 1 1/2 Survey  
 3 1/4 Wash & ream  
 1 1/2 Circulating  
 5 3/4 Testing  
 2 Lay down test tools  
**Bit:** 8, 8 3/4", (RR #4) Reed EHP51A, U12272, In @ 6018' - out @ 6047' - made 29' in 4.5 Hrs  
 Jets 12-13-13, T4-B2-G1, 6.4'/Hr.

**Survey:**

MD	ANGLE	DIRECTION	TVD	N-S	E-W	CLOSURE	DIRECTION
5962	10	N82W	5929.28	-10.54	-318.51	318.68	S88.10W
6023	10	N85W	5989.35	-9.34	-329.03	329.16	S88.37W

**Mud:** Wt. 10.9, Vis 42, WL 8.5, FC 2/32, PH 10.5, Wtr. 87, PV 21, YP 15, Gels 4/14 Alk. (Pf/Mf) .5/1.3 Solids 13, Sand tr, Calcium 160, Chlorides 12,000  
**BHA:** Bit, NB reamer, bit sub, monel DC, 17-6 1/4" spiral DC's, jars, 3-6 1/4" spiral DC's, 5-IIWDP  
 WOB 30,000#, RPM - 60, Pump - 1200 PSI, GPM 300, AVDP/AVDC - 130/181  
 Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,  
**Details:** Finished DST #2. Laid down DST tools. TIH w/bit and reamer to ream out the cored interval and drilled to TD @ 6047' at 2:30 AM 4/8/96. Circulated and conditioned mud. TOH for logs.  
**Geo.:** Akah  
**Costs:** Daily Cost: \$ 13,474 Cum. Cost. \$ 417,906 Rem. AFE: \$ 66,090

Daily Drilling Reports  
Petal Exploration, LLC

#1 Knockdhu Unit - UTU18452A  
Page 14

**DST #2, Lower Desert Creek 5974.5 - 6018'.**

IH 3354 psig  
IF 85 - 83 psig 30 min. Opened 1 1/2" increased to 2" in 10 min., decreased to 1/2" in 20 min. and remained steady after 30 min.  
ISI 769 psig 60 min. Died on shut in.  
FF 97 to 102 psig 60 min. Opened w/1/2" blow; dec. to 0 in 40 min; dead in 60  
FSI 3272 psig 240 min. Dead throughout  
FH 3345 psig  
BHT 127.2° F

Recovery: 125' drilling mud

Sample Chamber: .07 cu. ft. gas; 1480 cc water, 120 cc mud, Rw 0.075 at 68°, 108,000 ppm Cl.

Remarks: Packers held throughout DST. No gas to surface; no rainbow or show of oil. Rw top sample 0.588 @ 68°F, 10800 ppm Cl; Rw bottom sample = 5.141 @ 68°F, 11000 ppm Cl. Mud wt. 10.9#, Rw (mud) 0.600 @ 68°F, Rw (mud filtrate) 0.578 @ 68° = 11000 ppm Cl.

**4-9-96** 24 days from spud  
**Depth:** 6047' - Cum. Drlg. Hrs. 310.25  
**Status:** Trip out for DST #3  
**Hours:** 6 Tripping  
1 1/2 Circulating & condition for DST #3  
16 1/2 Logging

**Survey: From Dipmeter**

MD	ANGLE	DIRECTION	TVD	N-S	E-W	CLOSURE	DIRECTION
5650	8.6	N86.7W	5621.39	-15.14	-268.29	268.72	S86.77W
5700	8.2	N86.7W	5670.85	-14.72	-275.58	275.97	S86.94W
5750	7.9	N86.0W	5720.36	-14.28	-282.56	282.97	S87.11W
5800	7.6	N86.0W	5769.90	-13.81	-289.29	289.62	S87.27W
5850	7.8	N85.0W	5819.45	-13.28	-295.97	296.27	S87.43W
5900	8.0	N85.0W	5868.07	-12.65	-303.14	303.40	S87.61W
5950	10.0	N82.0W	5930.10	-11.49	-313.17	313.38	S87.90W
6000	9.9	N82.0W	5967.53	-10.58	-319.67	319.84	S88.10W
* 6023	10.0	N85.0W	5990.19	-10.13	-323.67	323.78	S88.21W

**\* Single Shot Surveys**

**Mud:** Wt. 10.9, Vis 43, WL 8.5, FC 2/32, PH 10.5, Wtr. 87, PV 21, YP 15, Gels 4/14  
Alk. (Pf/Mf) 5/1.1 Solids 13, Sand tr, Calcium 160, Chlorides 12,000

**BHA:** Bit, bit sub, 7-6 1/4" Spiral DC's, jars, 3-6 1/4" spiral DC's, 5-HWDP  
WOB 0, RPM - 60, Pump - 1200 PSI, GPM 300, AVDP/AVDC - 131/180  
Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,

**SLM:** Out of Hole - 6049.4' - Board 6047' - 2.4' difference - no correction  
In Hole - 6050.24' - Board 6047' - 3.24' difference - no correction

**Details:** Finished TOH. SLM. Rigged up Schlumberger to log. Ran Litho-Density, CNL, Array  
Induction, BHC, Formation Micro Imager (Dipmeter). Logger TD @ 6036'. Driller TD @  
6047'. Rigged up Schlumberger. TIH w/bit to circulate and condition the hole for DST #3.  
SLM in hole and conditioned mud for 1 1/2 Hrs. TOH for DST #3, lsmay 5670 - 5750'.

**Geo.:** TD in Akah

**Costs:** Daily Cost: \$ 29,655 Cum. Cost. \$ 447,561 Rem. AFE: \$ 36,435

Daily Drilling Reports  
Petrol Exploration, L.L.C.

#1 Knockdhu Unit - UTU18452A  
Page 15

**4-10-96** 25 days from spud  
**Depth:** T.D. 6047' - Cum. Drlg. Hrs. 310.25  
**Status:** Final shut-in on DST #3  
**Hours:** 3 3/4 Tripping  
           3/4 Cut drilling line  
           2 1/2 Pick up DST tools  
           17 Testing  
**Mud:** Wt. 10.9, Vis 43, WL 8.5, FC 2/32, PH 10.5, Wtr. 87, PV 21, YP 18, Gels 5/20  
 Alk. (Pf/Mf) .5/1.1 Solids 13, Sand tr, Calcium 180, Chlorides 12,000  
**BHA:** DST tools  
 Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,  
**Details:** Finished TOH. Picked up test tools for DST #3, Upper Ismay 5670 - 5750'. TIH. Set packers and opened tool at 1:16 PM w/2" blow, 10 psig in 15 min., 19 psig in 25 min., 36 psig in 30 min. Closed tool. Gas to surface 3 min. after shut-in. Shut-in for 60 min. Tool opened at 2:48 PM w/blow to bottom of bucket; 10 min. 65 psig, 20 min. 100 psig, 30 min. 125 psig, 40 min. 150 psig, 50 min. 171 psig, 90 min. 290 psig, 150 min. 400 psig, 210 min. 448 psig, 270 min. 547 psig. Utilized 1/4" choke throughout test period. Total time final flow of 4 1/2 hours. Shut tool in. Final shut-in will be 12 hours.  
**Geo.:** DST #3, Upper Ismay  
**Costs:** Daily Cost: \$ 8,923 Cum. Cost. \$ 456,484 Rem. AFE: \$ 27,512

**4-11-96** 26 days from spud  
**Depth:** T.D. 6047' - Cum. Drlg. Hrs. 310.25  
**Status:** Tripping in hole with fishing tools  
**Hours:** 3 1/4 Tripping  
           5 1/2 Circulate gas out of hole  
           7 1/2 Work stuck pipe  
           1 1/4 Testing  
           3 3/4 Reverse circulate gas from pipe  
           2 3/4 Lay down test tools  
**Mud:** Wt. 9.9, Vis 40, WL 10, FC 2/32, PH 10, Wtr. 91, PV 16, YP 10, Gels 3/12  
 Alk. (Pf/Mf) .4/1.0, Solids 9, Sand tr, Calcium 140, Chlorides 12,000  
**BHA:** X-over sub, perforated anchor pipe, 2 packers, test tools, jars, circulating subs  
 FSI 300, GPM 140, AVDP/AVDC 72/92  
 Pump #1 - 6 x 8, 45 SPM Pump #2 - 6 x 8,  
**Details:** Finished DST #3. Released packers at 7:18 AM 4/10/96 after 12 Hr. shut-in. Stood 2 1/2 stands of DP in the derrick. Dropped a bar and opened the circulating sub. Reverse circulated the gas and condensate out of the DP. Picked up on the drill string and found that it was stuck. Worked the DP and determined that it was probably differentially stuck on the anchor below the bottom packers. Called for fishing tools and continued to work the DP. Circulated the gas out of the annulus and reduced the mud weight to 9.71 ppg going in and 10.2 ppg coming out. Attempted to back off at the safety joint. Got a back off and tripped out of the hole. Back off was at the x-over below the bottom packers. Recovered everything except the 9 DC, 2 x-overs, short perforated nipple and the bull plug. Laid down the recovered test tools and picked up a new BHA: Cutlip x-over (we cut the x-over and will have to buy same), perforated sub, 2 packers, safety joint, jars, bypass, test tool, x-over sub, 1 std. DC's, 2-pin type circulating subs, DC's, HWDP. Start TIH. Top of fish is at = 5606' and bottom at = 5897' (See attached "Tool String Schematic").

#### DST #3, Upper Ismay, 5670 - 5750'

IH	3180 psig		
IF	24 - 198 psig	30 min.	Opened w/2" blow, 10 psig in 15 min., 19 psig in 25 min., 36 psig in 30 min.
ISI	2236 psig	60 min.	Gas to surface in 3 min.
FF	198 - 869psig	270 min.	Opened w/blow to bottom of bucket, built to 547 psig in 4 1/2 hours. Strong gas flare throughout final flow.
			Caught sample
FSI	2287 psig	720 min.	Bled gas off to flare pit.
FH	3155 psig		
BHT	124° F		

Daily Drilling Reports  
Pctral Exploration, LLC

#1 Knockdhu Unit - UTU18452A

Page 16

**Recovery:** Calculated recovery based on pressure at end of let flow vs. pressure at beginning of 2nd flow and observed reversed fluids; 500' of condensate and 100' of gas cut drilling mud and filtrate.

**Sample Chamber:** Invalid due to cycling the test tools while trying to get free.

**Remarks:** Released packers after 12 hour shut-in and pulled 2 1/2 stands (150') off bottom. Dropped a bar and opened the circulating sub. Reverse circulated the gas and condensate out of the drill pipe. Tried to pull out of the hole and found that the pipe was differentially stuck on the anchor. Circulated the gas out of the well and attempted to back off at the safety joint. Back off was at the x-over above the DC's in the anchor.

**Costs:** Daily Cost: \$ 8,948 Cum. Cost: \$ 465,432 Rem. AFE: \$ 18,564

**4-11-96** 8 AM Supplemental Report

Latched onto fish. Set packer and opened DET tool. Fish immediately came free (8:15 A.M.). Pulled two joints. Set back kelly. Now chaining out of hole with fish. Should be on bank = 1 PM. Plan on laying down all but 2 DC's and TIH with 2 DC and bit to condition hole. Will then TOH and WOO.

**4-12-96** 27 days from spud

**Depth:** T.D. 6047' - Cum. Drlg. Hrs. 310.25

**Status:** Tripping in hole to lay down drill pipe

**Hours:** 12 Tripping  
1 1/2 Circulating  
1 3/4 Load out test tools  
3/4 Fishing

8 Wait on orders and casing

**Bit:** 8, 8 3/4", (RR #4) Reed EHIP51A, U12272, In @ 6018' - out @ 6047" - made 29' in 4.5 Hrs  
Jcts 12-13-13, T4-B2-G1, 6.4'/Hr

**Mud:** Wt. 9.7, Vis 36, WL 10, FC 2/32, PH 10, Wtr. 91, PV 14, YP 7, Gels 3/9 Alk.  
(Pf/Mf) .4/.7, Solids 9, Sand tr, Calcium 140, Chlorides 12,000

**BHA:** Bit, bit sub, 2 spiral DC, 5 HWDP

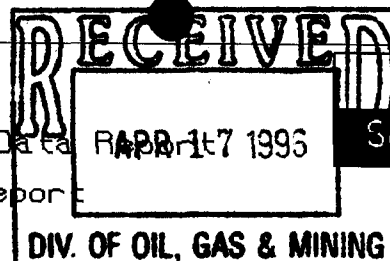
WOB 2000, RPM 60, PSI 1000, GPM 140, AVDP/AVDC 72/92

Pump #1 - 6 x 8, 100 SPM Pump #2 - 6 x 8,

**Details:** Finished TIH w/fishing tools. Screwed into the fish. Worked the fish while applying torque. Pulled up and let jars go off. Set down on the packers and let the test tool open. The fish immediately came free when the test tool opened at 8:15 AM. Immediately pulled up 60' and broke 1 Jt. off in the mousehole. Kellyed up and pulled another 30' joint. Stood the kelly back and continued TOH (chaining out). Recovered the complete fish. Laid down the fishing tools and loaded out same. TIH w/spiral DC's and laid down all but 2. TIH w/bit, bit sub, 2 spiral DC's, 5 WHWDP and DP to circulate the hole clean and free of gas. TOH into casing and waiting on delivery of casing. Anticipate casing arriving on location between 10 AM and 12 PM. Could not get lower 1200' of casing sand blasted, because of inclement weather (rain).

**Costs:** Daily Cost: \$ 18,909 Cum. Cost: \$ 484,341 Rem. AFE: \$ -345

# CONFIDENTIAL

REPORT NO.  
142519

PAGE NO. 1

TEST DATE:  
29-MAR-96

S T A R

Schlumberger Testing Data Report  
Pressure Data Report

Schlumberger

DIV. OF OIL, GAS &amp; MINING

COMPANY: PETRAL EXPLORATION

WELL: KNOCKDHU #1

## TEST IDENTIFICATION

Test Type ..... MFE-OH-HPR  
Test No. .... 1  
Formation ..... HONAKER TRAIL  
Test Interval (ft) ..... 4866 to 4908  
Depth Reference ..... KB

## WELL LOCATION

Field ..... W/C  
County ..... SAN JUAN  
State ..... UTAH  
Sec/Twn/Rng ..... 33-37S-25E  
Elevation (ft) ..... 5587

## HOLE CONDITIONS

Total Depth (MD/TVD) (ft) .... 4908  
Hole Size (in) ..... 8.75  
Casing/Liner I.D. (in) .....  
Perf'd Interval/Net Pay (ft) .. / 35  
Shot Density/Diameter (in) ...

## MUD PROPERTIES

Mud Type ..... LSND  
Mud Weight (lb/gal) ..... 9.9  
Mud Resistivity (ohm.m) ..... 1.4 @ 50F  
Filtrate Resistivity (ohm.m) .. 1.5 @ 50F  
Filtrate Chlorides (ppm) ..... 7200

## INITIAL TEST CONDITIONS

Initial Hydrostatic (psi) .... 2519.76  
Gas Cushion Type .....  
Surface Pressure (psi) .....  
Liquid Cushion Type .....  
Cushion Length (ft) .....

## TEST STRING CONFIGURATION

Pipe Length (ft)/I.D. (in) ... 4198 / 3.80  
Collar Length (ft)/I.D. (in) .. 0 / 3.80  
Packer Depths (ft) ..... 4860, 4866,  
Bottomhole Choke Size (in) ... .92  
Gauge Depth (ft)/Type ..... 4836/HPR 1390

## NET PIPE RECOVERY

Volume	Fluid Type	Properties
3 bbl	TOP	Rw.0.24@48F 47000ppm
15 bbl	MIDDLE	Rw.14@48F 70000ppm
40 bbl	BOTTOM	Rw.1@48F 112000ppm
58 bbl	TOTAL	

## NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
.04 cuft	Gas	
2450 cc	Water	Rw.10@68F 112000ppm
Pressure: 275		GOR: 0
		GLR: 3

## INTERPRETATION RESULTS

Model of Behavior .....  
Fluid Type Used for Analysis..  
Reservoir Pressure (psi) .....  
Transmissibility (md.ft/cp) ..  
Effective Permeability (md) ..  
Skin Factor/Damage Ratio .....  
Storativity Ratio, Omega .....  
Interporos.Flow Coef., Lambda..  
Distance to an Anomaly (ft) ..  
Radius of Investigation (ft) ..  
Potentiometric Surface (ft) ..

## ROCK/FLUID/WELLBORE PROPERTIES

Oil Density (deg. API) .....  
Basic Solids (%) .....  
Gas Gravity .....  
GOR (scf/STB) .....  
Water Cut (%) .....  
Viscosity (cp) .....  
Total Compressibility (1/psi)..  
Porosity (%) ..... 17  
Reservoir Temperature (F) .... 119  
Form.Vol.Factor (bbl/STB) ....

## PRODUCTION RATE DURING TEST: Data Report

## COMMENTS:

This drill stem test was mechanically successful.

Thank you for using Schlumberger. For questions about this report please call the Testing district.

WELL TEST INTERPRETATION REPORT #:142519		PAGE: 2,
CLIENT : PETRAL EXPLORATION		1-APR-96
REGION :WESTERN	SEQUENCE OF EVENTS	FIELD:W/C
DISTRICT:VERNAL		ZONE :HONAKER TRAIL
BASE :DENVER		WELL :KNDCKDHU #1
ENGINEER:C. RICHARDS		LOCATION:33-37S-25E

DATE	TIME (HR:MIN)	DESCRIPTION	ET (MINS)	BHP (PSIA)	WHP (PSIG)
29-MAR	05:47	SET PACKER	-2	2520	
	05:49	START FLOW 8" BLOW IN H2O	0	403	
	05:54		5		2
	05:59		10		3.5
	06:04	END FLOW & START SHUT-IN	15	1299	4.5
	06:34	END SHUT-IN	45	2366	
	06:34	CYCLED TOOL	45		
	06:36	START FLOW 14" BLOW IN H2O	47	1418	
	06:41		52		2
	06:46		57		2.75
	07:01		72		2.25
	07:06		77		1.25
	07:11		82		0.75
	07:16		87		0.50
	07:21		92		.25
	07:26	6 OZ BLOW	97		
	07:31	4 OZ BLOW	102		
	07:36	3 3/4 OZ BLOW	107		
	07:37	END FLOW & START SHUT-IN	108	2256	
	09:37	END SHUT-IN	228	2403	
	09:38	HYDROSTATIC MUD	229	2480	



# BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 142519

COMPANY : PETRAL EXPLORATION

INSTRUMENT NO. HPR-C1390

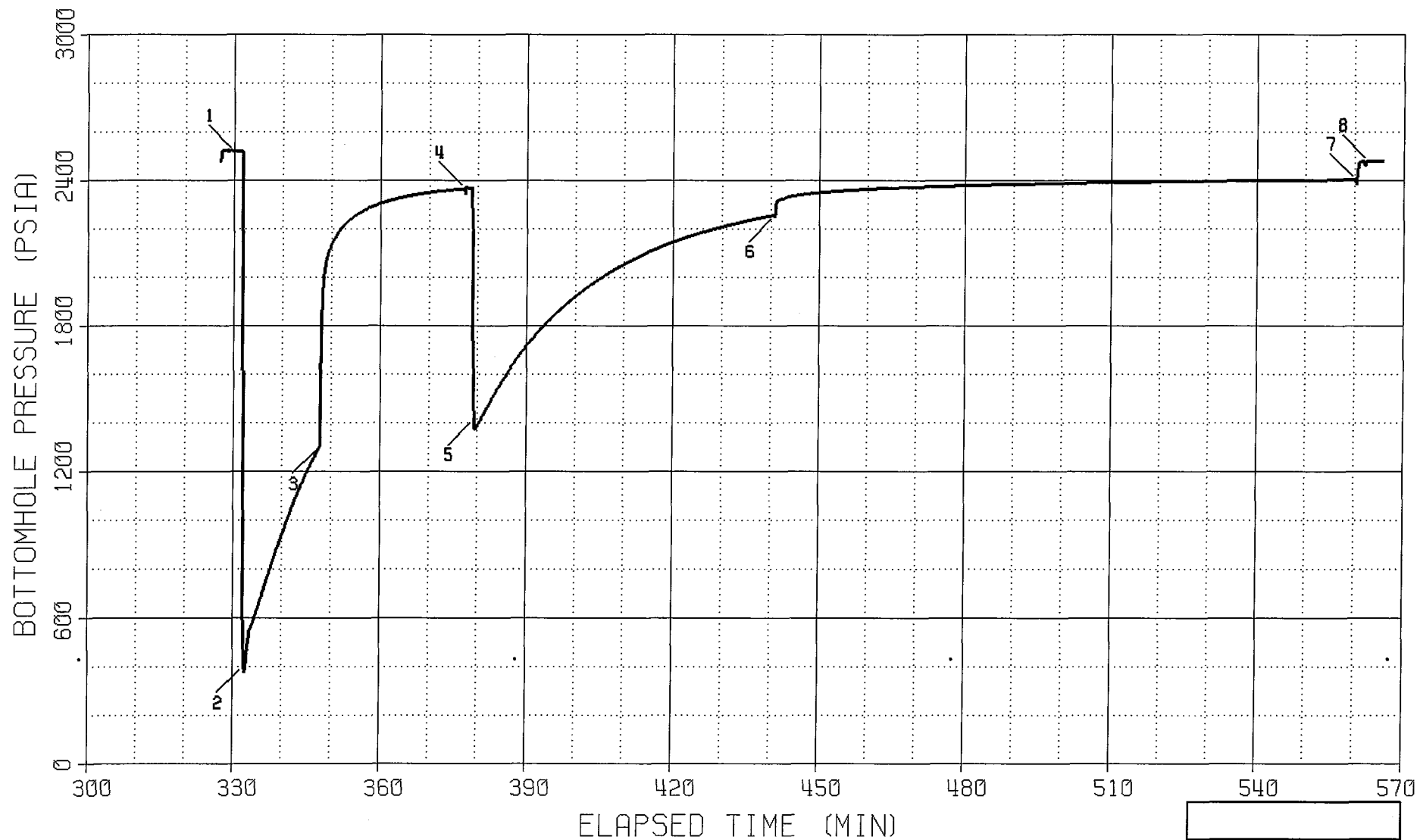
WELL : KNOCKDHU #1

DEPTH : 4836 FT

CAPACITY : 20000 PSI

Electronic Pressure Data

PORT OPENING : INSIDE



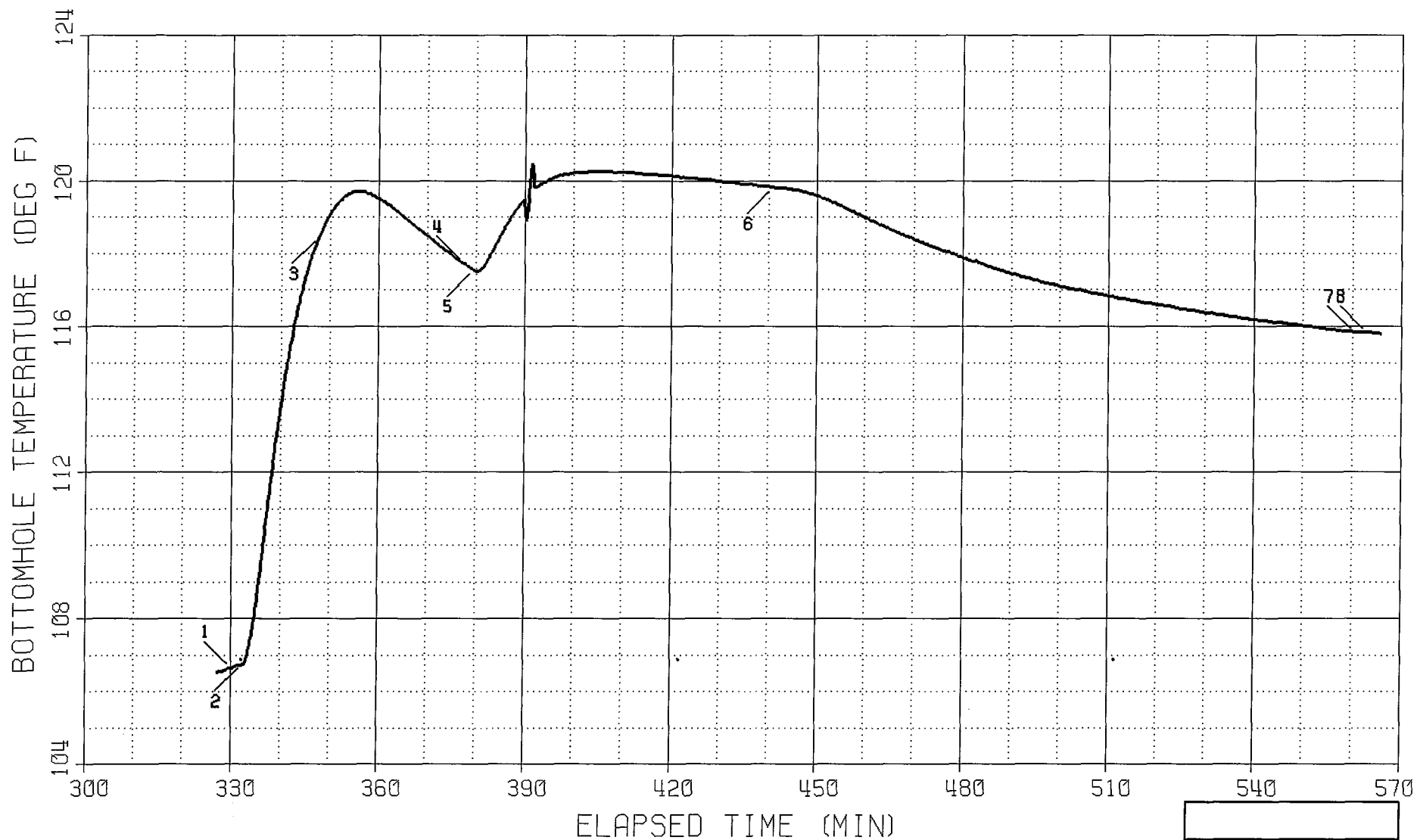
Schlumberger

# BOTTOMHOLE TEMPERATURE LOG

FIELD REPORT NO. 142519  
INSTRUMENT NO. HPR-C1390  
DEPTH : 4836 FT

COMPANY : PETRAL EXPLORATION  
WELL : KNOCKDHU #1

Electronic Temperature Data

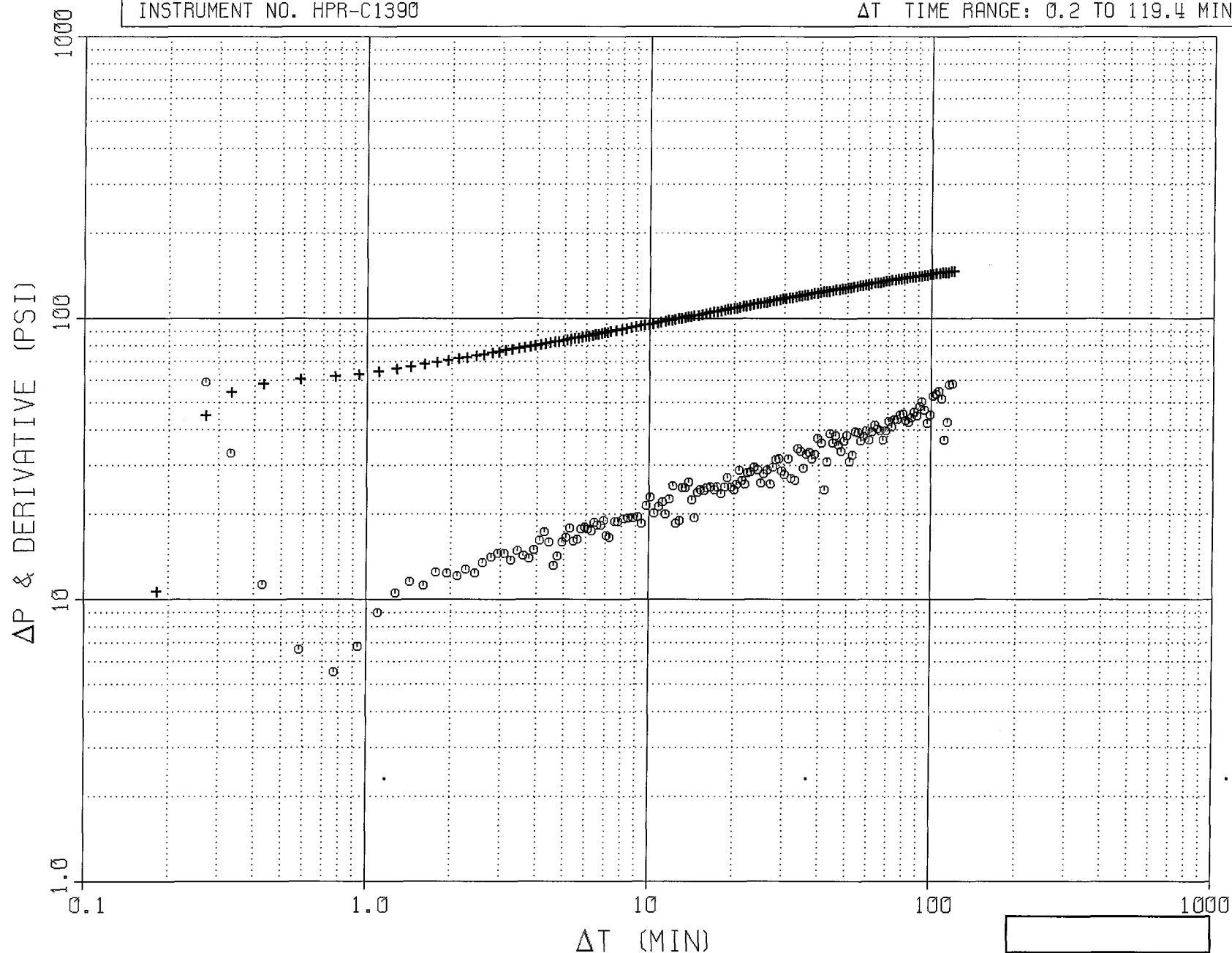


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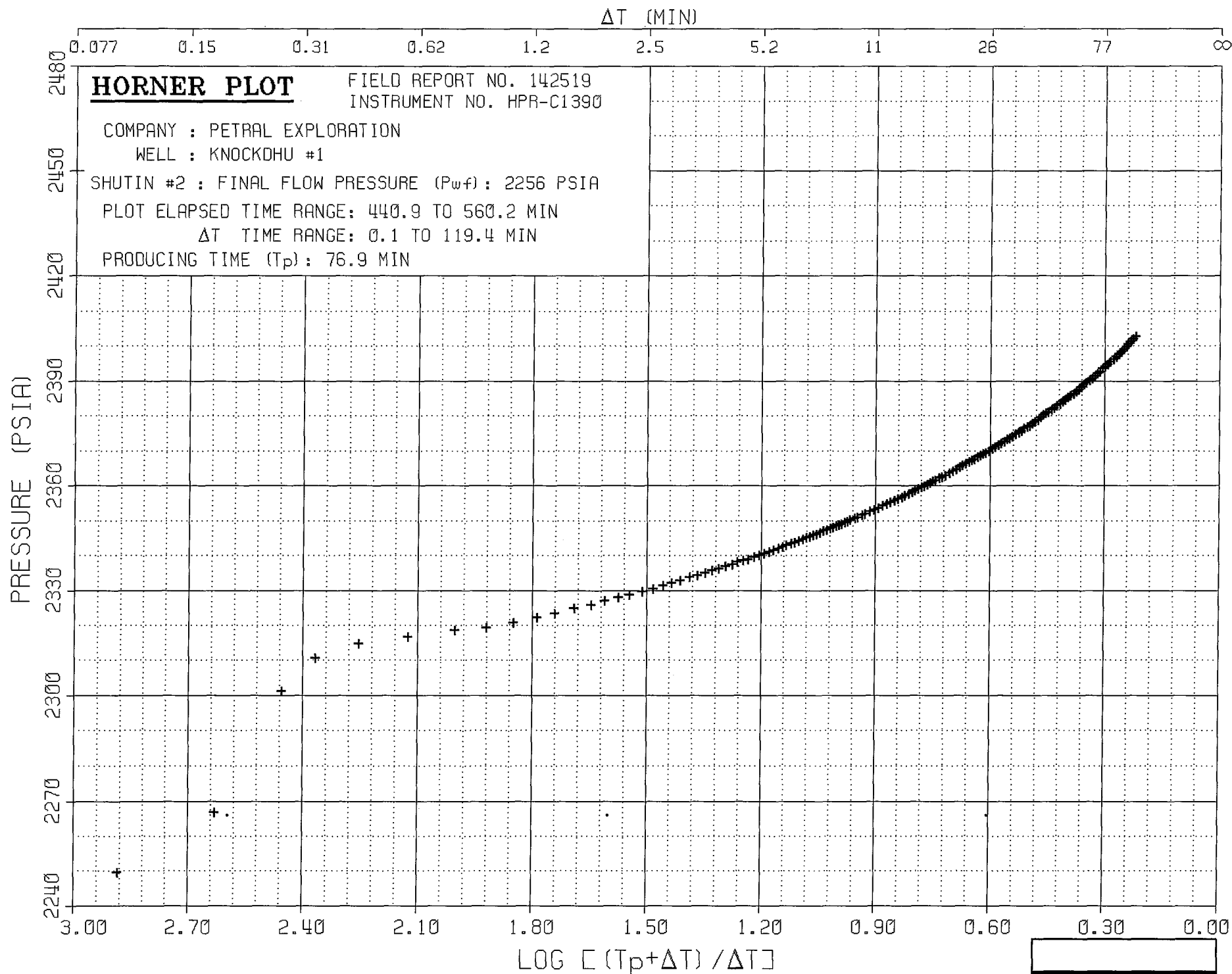
# LOG LOG PLOT

COMPANY : PETRAL EXPLORATION  
WELL : KNOCKDHU #1  
FIELD REPORT NO. 142519  
INSTRUMENT NO. HPR-C1390

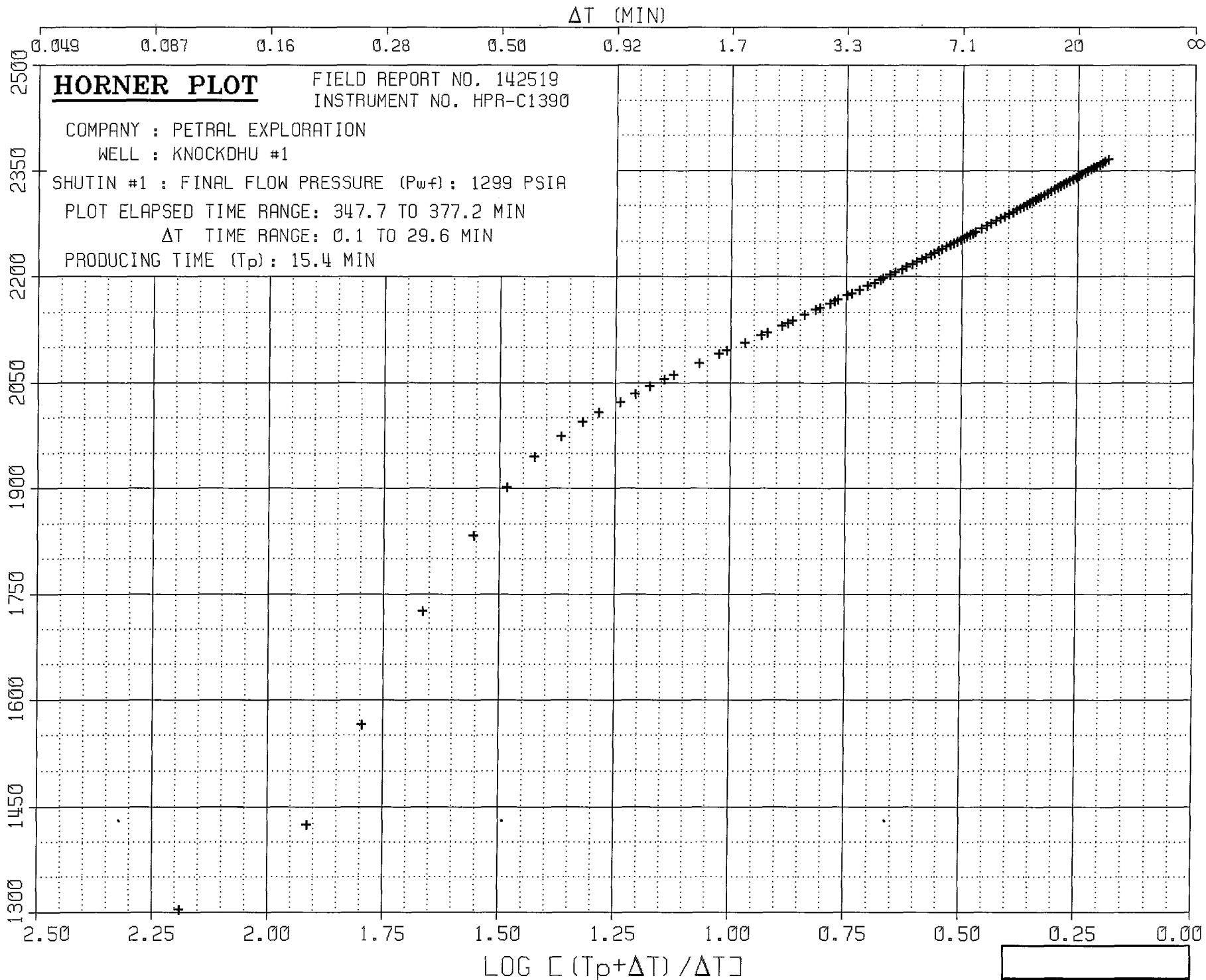
SHUTIN #2 : PRODUCING TIME ( $T_p$ ) : 76.9 MIN  
FINAL FLOW PRESSURE ( $P_{wf}$ ) : 2256 PSIA  
PLOT ELAPSED TIME RANGE: 441.0 TO 560.2 MIN  
 $\Delta T$  TIME RANGE: 0.2 TO 119.4 MIN



Schlumberger



PRESSURE (PSIA)



Schlumberger

\*\*\*\*\*  
 \*\* WELL TEST DATA PRINTOUT \*\*  
 \*\*\*\*\*

COMPANY: PETRAL EXPLORATION  
 WELL: KNOCKDHU #1

FIELD REPORT NO. 142519  
 INSTRUMENT NO. HPR-C1390

RECORDER CAPACITY: 20000 PSI    PORT OPENING: INSIDE    DEPTH: 4836 FT

LABEL POINT INFORMATION  
 \*\*\*\*\*

#	TIME OF DAY HH:MM:SS	DATE DD-MMM	EXPLANATION	ELAPSED TIME, MIN	BOT HOLE PRESSURE PSIA	BOT HOLE TEMP. DEG F
1	5:46:59	29-MAR	HYDROSTATIC MUD	329.98	2519.76	106.65
2	5:49:14	29-MAR	START FLOW	332.23	402.73	106.74
3	6:04:38	29-MAR	END FLOW & START SHUT-IN	347.63	1298.89	118.44
4	6:34:14	29-MAR	END SHUT-IN	377.23	2366.19	117.75
5	6:36:19	29-MAR	START FLOW	379.32	1417.71	117.55
6	7:37:48	29-MAR	END FLOW & START SHUT-IN	440.80	2256.20	119.84
7	9:37:14	29-MAR	END SHUT-IN	560.23	2403.16	115.84
8	9:39:44	29-MAR	HYDROSTATIC MUD	562.73	2479.86	115.83

SUMMARY OF FLOW PERIODS  
 \*\*\*\*\*

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	INITIAL PRESSURE PSIA
1	332.23	347.63	15.40	402.73	1298.89	402.73
2	379.32	440.80	61.48	1417.71	2256.20	1417.71

SUMMARY OF SHUTIN PERIODS  
 \*\*\*\*\*

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1	347.63	377.23	29.60	1298.89	2366.19	1298.89	15.40
2	440.80	560.23	119.43	2256.20	2403.16	2256.20	76.88

## TEST PHASE: FLOW PERIOD # 1

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA
5:49:14	29-MAR	332.23	0.00	106.74	402.73
6:04:14	29-MAR	347.23	15.00	118.29	1282.82
6:04:38	29-MAR	347.63	15.40	118.44	1298.89

## TEST PHASE: SHUTIN PERIOD # 1

FINAL FLOW PRESSURE = 1298.89 PSIA  
PRODUCING TIME = 15.40 MIN

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
6:04:38	29-MAR	347.63	0.00	118.44	1298.89	0.00	
6:05:39	29-MAR	348.65	1.02	118.74	2034.25	735.36	1.2068
6:06:39	29-MAR	349.65	2.02	119.01	2117.03	818.14	0.9357
6:07:39	29-MAR	350.65	3.02	119.23	2161.97	863.08	0.7853
6:08:44	29-MAR	351.73	4.10	119.43	2195.58	896.69	0.6773
6:09:48	29-MAR	352.80	5.17	119.57	2220.24	921.35	0.5997
6:10:48	29-MAR	353.80	6.17	119.64	2238.81	939.92	0.5436
6:11:49	29-MAR	354.82	7.19	119.70	2254.19	955.30	0.4972
6:12:49	29-MAR	355.82	8.19	119.71	2267.24	968.35	0.4594
6:13:59	29-MAR	356.98	9.35	119.70	2279.98	981.09	0.4228
6:15:09	29-MAR	358.15	10.52	119.64	2290.80	991.91	0.3916
6:17:09	29-MAR	360.15	12.52	119.52	2306.10	1007.21	0.3483
6:19:09	29-MAR	362.15	14.52	119.34	2318.43	1019.54	0.3140
6:21:09	29-MAR	364.15	16.52	119.12	2328.50	1029.61	0.2861
6:23:09	29-MAR	366.15	18.52	118.90	2336.84	1037.95	0.2628
6:25:09	29-MAR	368.15	20.52	118.69	2343.98	1045.09	0.2432
6:27:19	29-MAR	370.32	22.69	118.45	2350.62	1051.73	0.2250
6:29:29	29-MAR	372.48	24.85	118.22	2356.33	1057.44	0.2094
6:31:39	29-MAR	374.65	27.02	118.00	2361.30	1062.41	0.1959
6:33:39	29-MAR	376.65	29.02	117.81	2365.27	1066.38	0.1849
6:34:14	29-MAR	377.23	29.60	117.75	2366.19	1067.30	0.1819

## TEST PHASE: FLOW PERIOD # 2

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA
6:36:19	29-MAR	379.32	0.00	117.55	1417.71
6:51:24	29-MAR	394.40	15.08	120.00	1818.88
7:06:24	29-MAR	409.40	30.08	120.25	2047.56
7:21:34	29-MAR	424.57	45.25	120.07	2177.39
7:36:34	29-MAR	439.57	60.25	119.86	2252.13
7:37:48	29-MAR	440.80	61.48	119.84	2256.20

TEST PHASE: SHUTIN PERIOD # 2

FINAL FLOW PRESSURE = 2256.20 PSIA  
PRODUCING TIME = 76.88 MIN

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
7:37:48	29-MAR	440.80	0.00	119.84	2256.20	0.00	
7:38:54	29-MAR	441.90	1.10	119.82	2320.77	64.57	1.8506
7:39:54	29-MAR	442.90	2.10	119.80	2327.86	71.66	1.5753
7:41:04	29-MAR	444.07	3.27	119.79	2333.62	77.42	1.3894
7:42:04	29-MAR	445.07	4.27	119.77	2337.42	81.22	1.2789
7:43:14	29-MAR	446.23	5.43	119.75	2341.02	84.82	1.1807
7:44:14	29-MAR	447.23	6.43	119.71	2343.71	87.51	1.1125
7:45:24	29-MAR	448.40	7.60	119.66	2346.53	90.33	1.0459
7:46:24	29-MAR	449.40	8.60	119.62	2348.62	92.42	0.9974
7:47:34	29-MAR	450.57	9.77	119.57	2350.84	94.64	0.9479
7:48:34	29-MAR	451.57	10.77	119.52	2352.73	96.53	0.9105
7:50:44	29-MAR	453.73	12.93	119.41	2356.13	99.93	0.8417
7:52:54	29-MAR	455.90	15.10	119.26	2359.24	103.04	0.7847
7:54:54	29-MAR	457.90	17.10	119.12	2361.74	105.54	0.7400
7:57:04	29-MAR	460.07	19.27	118.99	2364.16	107.96	0.6981
7:59:14	29-MAR	462.23	21.43	118.85	2366.39	110.19	0.6616
8:01:14	29-MAR	464.23	23.43	118.72	2368.20	112.00	0.6316
8:03:24	29-MAR	466.40	25.60	118.60	2370.09	113.89	0.6024
8:05:24	29-MAR	468.40	27.60	118.49	2371.65	115.45	0.5781
8:07:34	29-MAR	470.57	29.77	118.36	2373.36	117.16	0.5542
8:09:34	29-MAR	472.57	31.77	118.26	2374.71	118.51	0.5340
8:14:34	29-MAR	477.57	36.77	118.00	2377.85	121.65	0.4901
8:19:34	29-MAR	482.57	41.77	117.81	2380.64	124.44	0.4534
8:24:44	29-MAR	487.73	46.93	117.55	2383.22	127.02	0.4213
8:29:54	29-MAR	492.90	52.10	117.34	2385.46	129.26	0.3937
8:35:04	29-MAR	498.07	57.27	117.18	2387.51	131.31	0.3697
8:40:14	29-MAR	503.23	62.43	117.01	2389.43	133.23	0.3486
8:45:24	29-MAR	508.40	67.60	116.87	2391.14	134.94	0.3299
8:50:24	29-MAR	513.40	72.60	116.76	2392.58	136.38	0.3136
8:55:24	29-MAR	518.40	77.60	116.64	2394.09	137.89	0.2990
9:00:24	29-MAR	523.40	82.60	116.53	2395.44	139.24	0.2857
9:05:24	29-MAR	528.40	87.60	116.42	2396.73	140.53	0.2736
9:10:24	29-MAR	533.40	92.60	116.31	2397.89	141.69	0.2625
9:15:34	29-MAR	538.57	97.77	116.22	2399.02	142.82	0.2520
9:20:34	29-MAR	543.57	102.77	116.13	2400.02	143.82	0.2426
9:25:34	29-MAR	548.57	107.77	116.04	2401.10	144.90	0.2339
9:30:34	29-MAR	553.57	112.77	115.95	2401.92	145.72	0.2258
9:35:44	29-MAR	558.73	117.93	115.88	2402.94	146.74	0.2180
9:37:14	29-MAR	560.23	119.43	115.84	2403.16	146.96	0.2158



# BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 142519

COMPANY : PETRAL EXPLORATION

INSTRUMENT NO. HPR-C9060

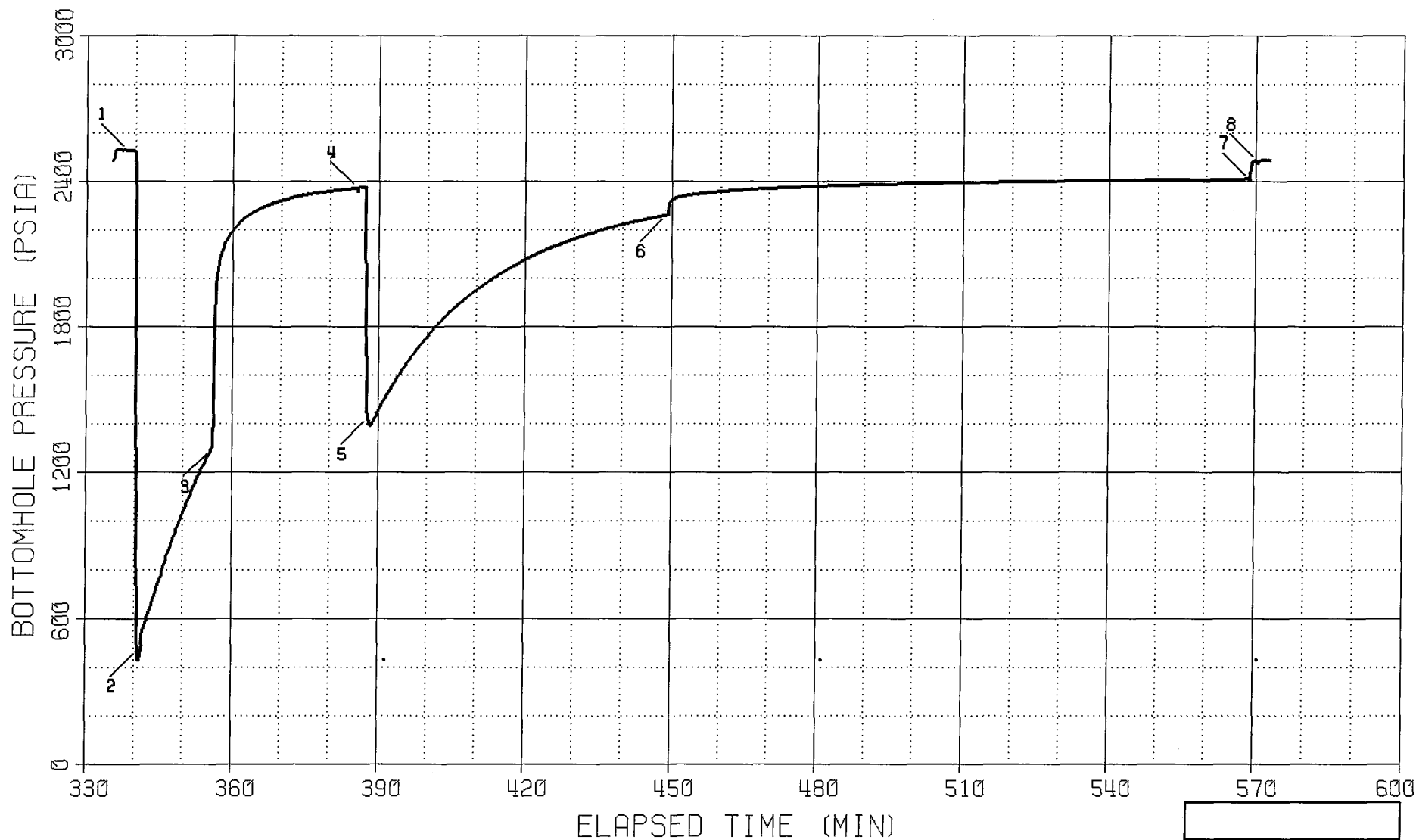
WELL : KNOCKDHU #1

DEPTH : 4842 FT

CAPACITY : 20000 PSI

Electronic Pressure Data

PORT OPENING : INSIDE



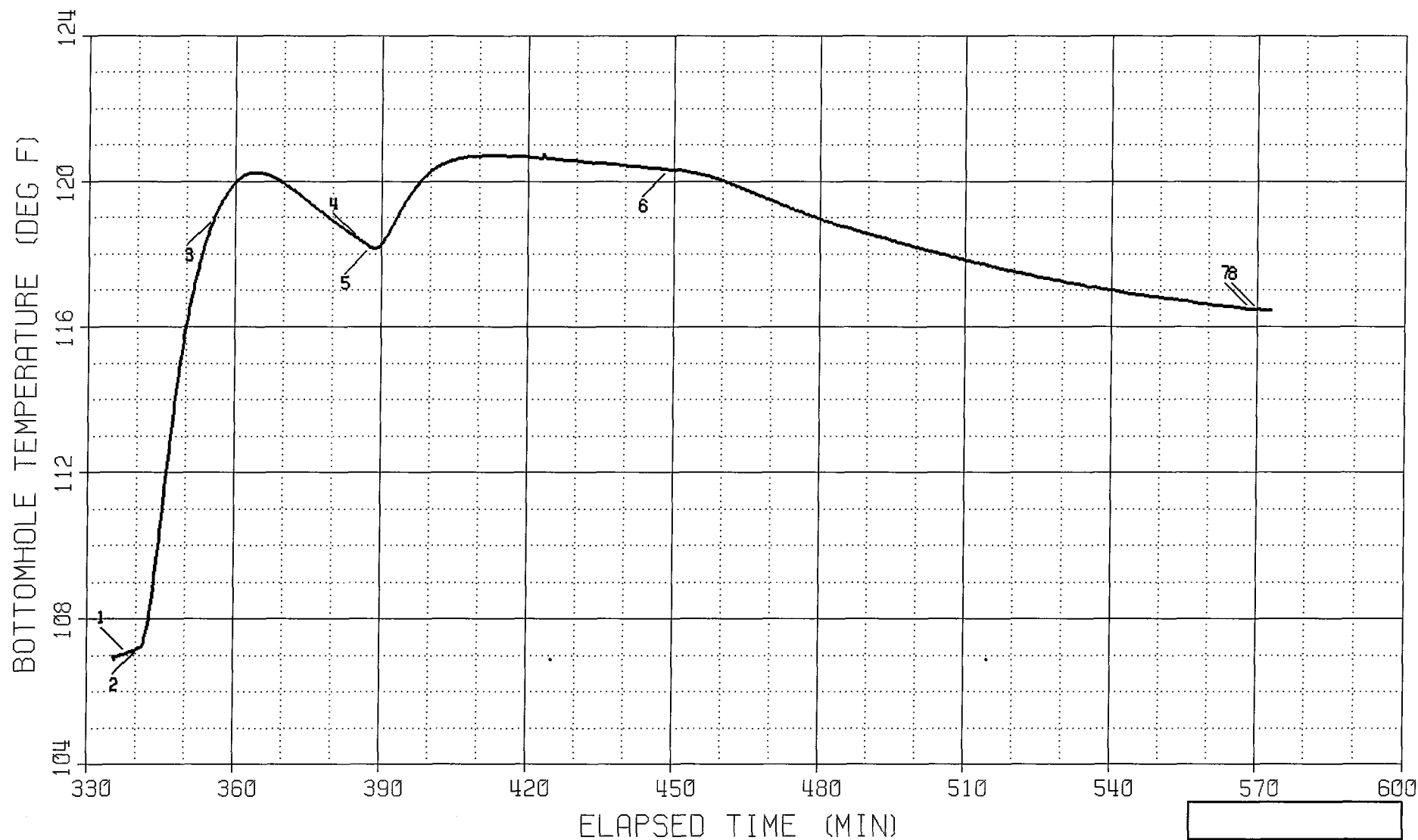
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# BOTTOMHOLE TEMPERATURE LOG

FIELD REPORT NO. 142519  
INSTRUMENT NO. HPR-C9060  
DEPTH : 4842 FT

COMPANY : PETRAL EXPLORATION  
WELL : KNOCKDHU #1

Electronic Temperature Data

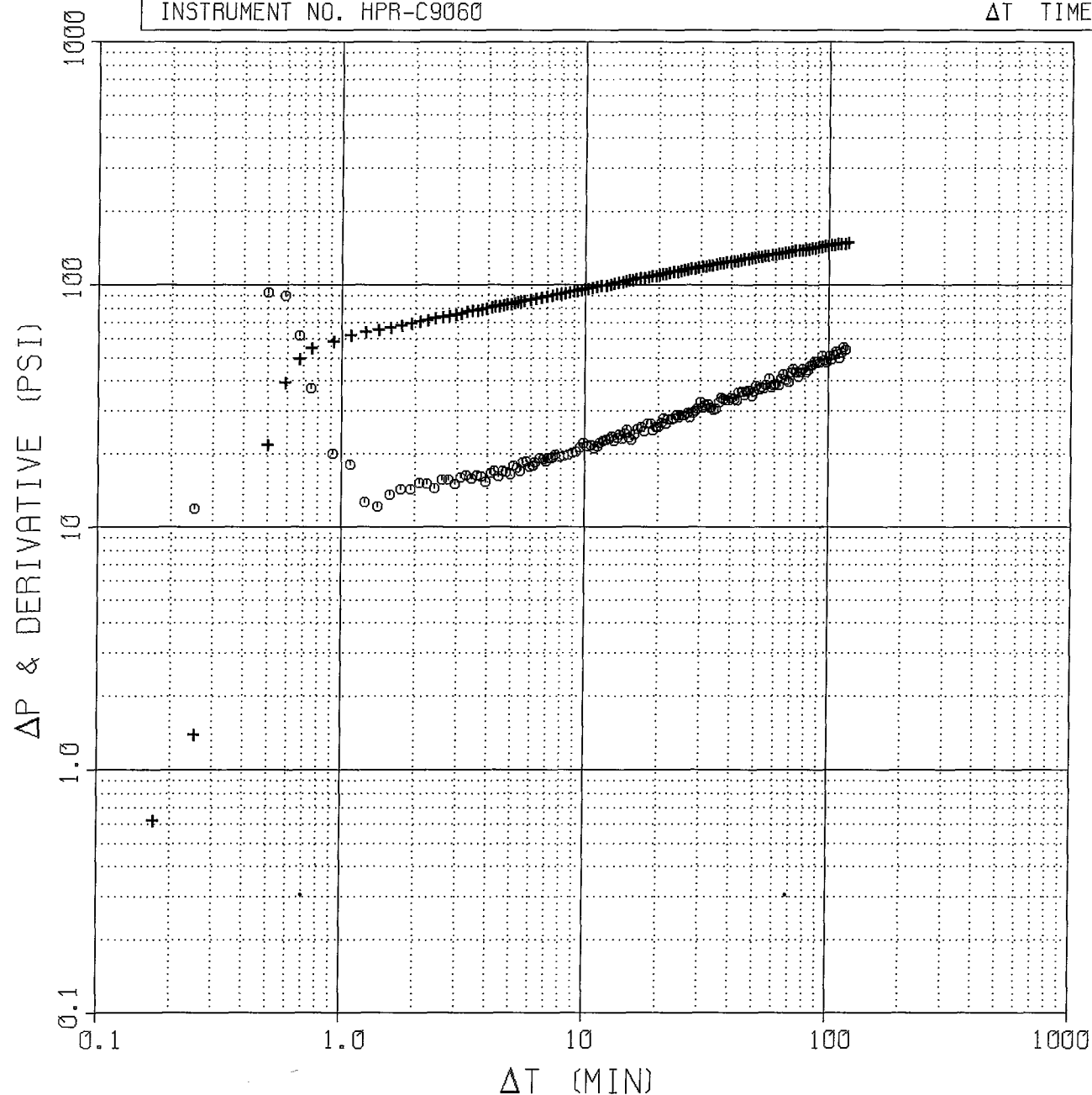


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# LOG LOG PLOT

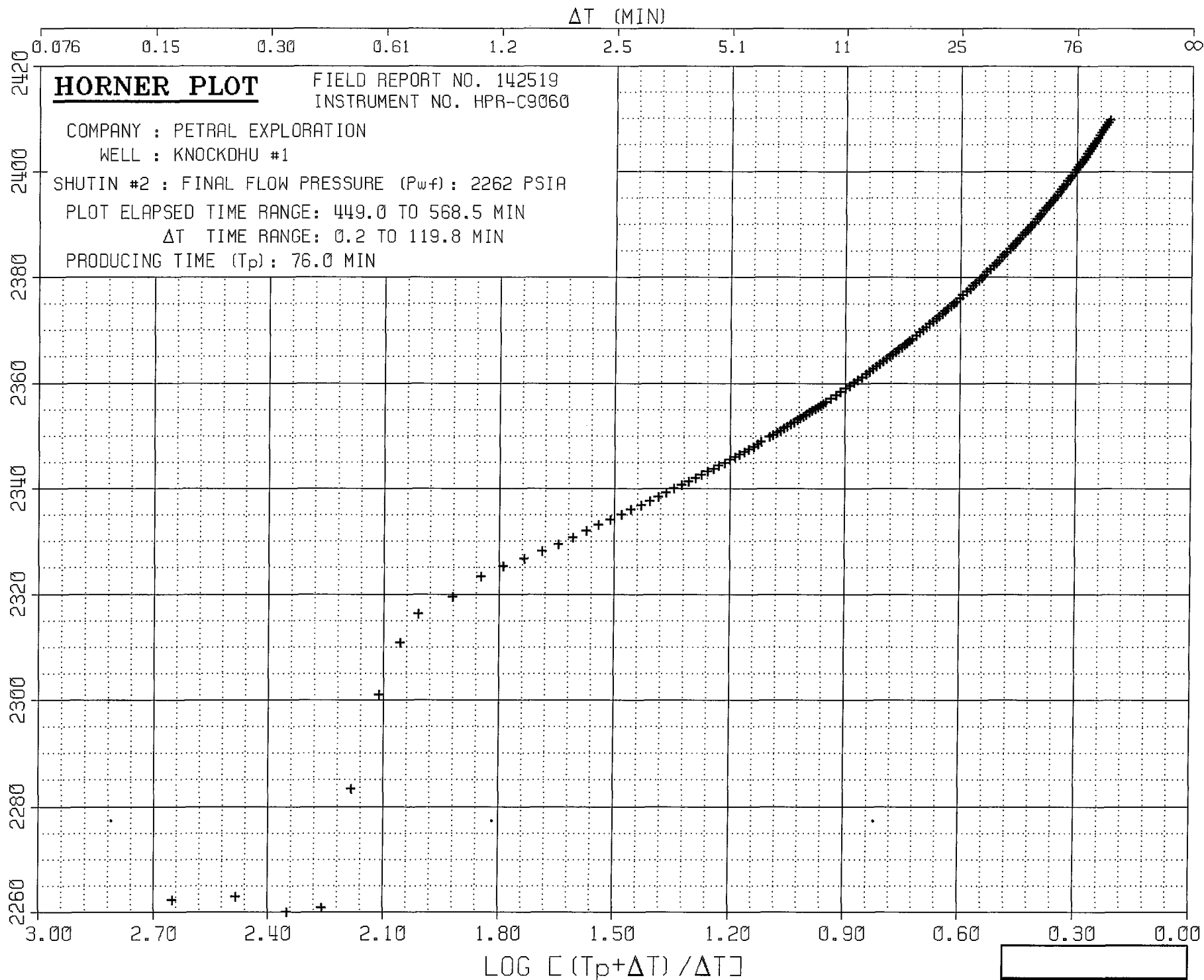
COMPANY : PETRAL EXPLORATION  
WELL : KNOCKDHU #1  
FIELD REPORT NO. 142519  
INSTRUMENT NO. HPR-C9060

SHUTIN #2 : PRODUCING TIME ( $T_p$ ) : 76.0 MIN  
FINAL FLOW PRESSURE ( $P_{wf}$ ) : 2262 PSIA  
PLOT ELAPSED TIME RANGE: 449.0 TO 568.5 MIN  
 $\Delta T$  TIME RANGE: 0.2 TO 119.8 MIN



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PRESSURE (PSIA)



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PRESSURE (PSIA)

$\Delta T$  (MIN)

# **HORNER PLOT**

FIELD REPORT NO. 142519  
INSTRUMENT NO. HPR-C9060

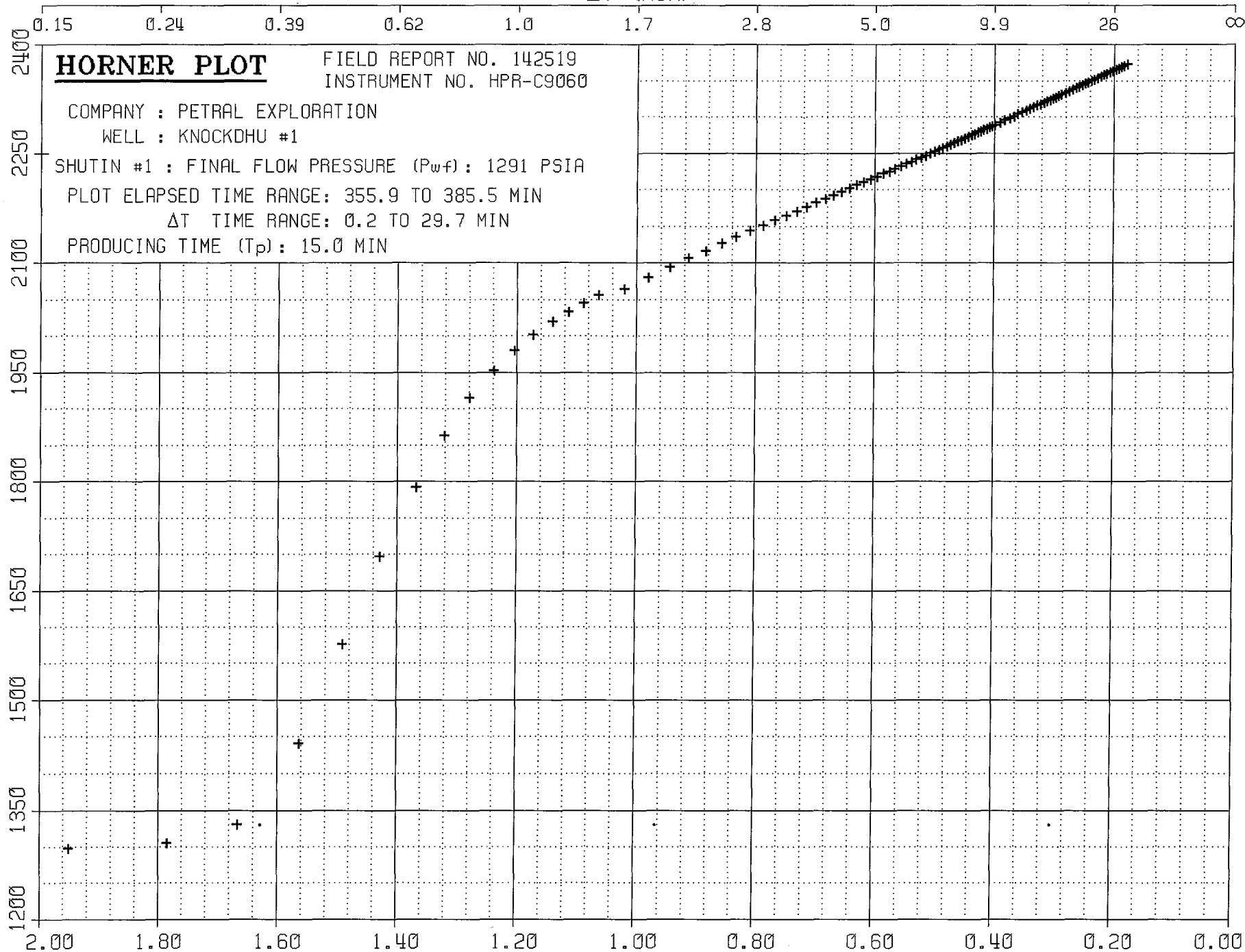
COMPANY : PETRAL EXPLORATION  
WELL : KNOCKDHU #1

SHUTIN #1 : FINAL FLOW PRESSURE ( $P_{wf}$ ) : 1291 PSIA

PLOT ELAPSED TIME RANGE: 355.9 TO 385.5 MIN

$\Delta T$  TIME RANGE: 0.2 TO 29.7 MIN

PRODUCING TIME ( $T_p$ ) : 15.0 MIN



$\text{LOG} [(T_p + \Delta T) / \Delta T]$

Schlumberger

\*\*\*\*\*  
 \*\* WELL TEST DATA PRINTOUT \*\*  
 \*\*\*\*\*

COMPANY: PETRAL EXPLORATION  
 WELL: KNOCKDHU #1

FIELD REPORT NO. 142519  
 INSTRUMENT NO. HPR-C9060

RECORDER CAPACITY: 20000 PSI    PORT OPENING: INSIDE    DEPTH: 4842 FT

LABEL POINT INFORMATION

\*\*\*\*\*

#	TIME OF DAY HH:MM:SS	DATE DD-MMM	EXPLANATION	ELAPSED TIME, MIN	BOT HOLE PRESSURE PSIA	BOT HOLE TEMP. DEG F
1	5:47:07	29-MAR	HYDROSTATIC MUD	338.12	2528.22	107.04
2	5:49:42	29-MAR	START FLOW	340.70	473.63	107.19
3	6:04:42	29-MAR	END FLOW & START SHUT-IN	355.70	1291.05	118.98
4	6:34:27	29-MAR	END SHUT-IN	385.45	2372.74	118.40
5	6:36:47	29-MAR	START FLOW	387.78	1424.74	118.20
6	7:37:47	29-MAR	END FLOW & START SHUT-IN	448.78	2261.55	120.33
7	9:37:32	29-MAR	END SHUT-IN	568.53	2409.83	116.49
8	9:39:02	29-MAR	HYDROSTATIC MUD	570.03	2486.65	116.47

SUMMARY OF FLOW PERIODS

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PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	INITIAL PRESSURE PSIA
1	340.70	355.70	15.00	473.63	1291.05	473.63
2	387.78	448.78	61.00	1424.74	2261.55	1424.74

SUMMARY OF SHUTIN PERIODS

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PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1	355.70	385.45	29.75	1291.05	2372.74	1291.05	15.00
2	448.78	568.53	119.75	2261.55	2409.83	2261.55	76.00

## TEST PHASE: FLOW PERIOD # 1

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA
5:49:42	29-MAR	340.70	0.00	107.19	473.63
6:04:42	29-MAR	355.70	15.00	118.98	1291.05

## TEST PHASE: SHUTIN PERIOD # 1

FINAL FLOW PRESSURE = 1291.05 PSIA  
PRODUCING TIME = 15.00 MIN

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORN TIME
6:04:42	29-MAR	355.70	0.00	118.98	1291.05	0.00	
6:05:42	29-MAR	356.70	1.00	119.30	1980.03	688.98	1.2041
6:06:47	29-MAR	357.78	2.08	119.55	2105.54	814.49	0.9144
6:07:47	29-MAR	358.78	3.08	119.77	2157.57	866.52	0.7686
6:08:47	29-MAR	359.78	4.08	119.95	2191.88	900.83	0.6699
6:09:47	29-MAR	360.78	5.08	120.07	2217.46	926.41	0.5969
6:10:47	29-MAR	361.78	6.08	120.18	2237.62	946.57	0.5400
6:11:47	29-MAR	362.78	7.08	120.24	2254.15	963.10	0.4940
6:12:47	29-MAR	363.78	8.08	120.25	2267.97	976.92	0.4558
6:13:47	29-MAR	364.78	9.08	120.25	2279.80	988.75	0.4236
6:14:47	29-MAR	365.78	10.08	120.22	2290.04	998.99	0.3959
6:16:47	29-MAR	367.78	12.08	120.11	2306.91	1015.86	0.3506
6:18:47	29-MAR	369.78	14.08	119.97	2320.31	1029.26	0.3150
6:20:47	29-MAR	371.78	16.08	119.77	2331.15	1040.10	0.2862
6:22:47	29-MAR	373.78	18.08	119.57	2340.16	1049.11	0.2624
6:24:47	29-MAR	375.78	20.08	119.35	2347.81	1056.76	0.2423
6:26:47	29-MAR	377.78	22.08	119.16	2354.35	1063.30	0.2251
6:28:47	29-MAR	379.78	24.08	118.94	2360.00	1068.95	0.2103
6:30:47	29-MAR	381.78	26.08	118.74	2364.93	1073.88	0.1973
6:32:47	29-MAR	383.78	28.08	118.56	2369.35	1078.30	0.1859
6:34:27	29-MAR	385.45	29.75	118.40	2372.74	1081.69	0.1773

## TEST PHASE: FLOW PERIOD # 2

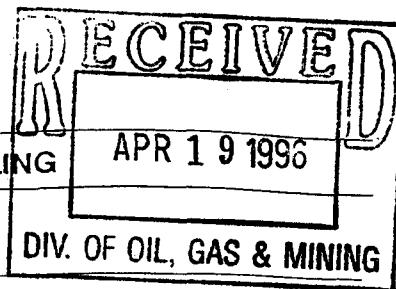
TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA
6:36:47	29-MAR	387.78	0.00	118.20	1424.74
6:51:47	29-MAR	402.78	15.00	120.49	1824.85
7:06:47	29-MAR	417.78	30.00	120.70	2053.76
7:21:47	29-MAR	432.78	45.00	120.54	2182.55
7:36:47	29-MAR	447.78	60.00	120.34	2257.80
7:37:47	29-MAR	448.78	61.00	120.33	2261.55

TEST PHASE: SHUTIN PERIOD # 2

FINAL FLOW PRESSURE = 2261.55 PSIA  
PRODUCING TIME = 76.00 MIN

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
7:37:47	29-MAR	448.78	0.00	120.33	2261.55	0.00	
7:38:52	29-MAR	449.87	1.09	120.33	2323.36	61.81	1.8496
7:39:52	29-MAR	450.87	2.09	120.31	2331.89	70.34	1.5724
7:40:52	29-MAR	451.87	3.09	120.29	2337.64	76.09	1.4082
7:41:52	29-MAR	452.87	4.09	120.27	2341.92	80.37	1.2919
7:42:52	29-MAR	453.87	5.09	120.25	2345.39	83.84	1.2022
7:43:52	29-MAR	454.87	6.09	120.22	2348.37	86.82	1.1297
7:44:52	29-MAR	455.87	7.09	120.18	2351.00	89.45	1.0689
7:45:52	29-MAR	456.87	8.09	120.15	2353.33	91.78	1.0168
7:46:52	29-MAR	457.87	9.09	120.11	2355.38	93.83	0.9713
7:47:52	29-MAR	458.87	10.09	120.07	2357.39	95.84	0.9311
7:49:52	29-MAR	460.87	12.09	119.98	2360.81	99.26	0.8625
7:51:52	29-MAR	462.87	14.09	119.88	2363.86	102.31	0.8058
7:53:52	29-MAR	464.87	16.09	119.77	2366.50	104.95	0.7577
7:55:52	29-MAR	466.87	18.09	119.66	2368.90	107.35	0.7161
7:57:52	29-MAR	468.87	20.09	119.53	2371.10	109.55	0.6797
7:59:52	29-MAR	470.87	22.09	119.43	2373.09	111.54	0.6474
8:01:52	29-MAR	472.87	24.09	119.32	2374.98	113.43	0.6186
8:03:52	29-MAR	474.87	26.09	119.21	2376.67	115.12	0.5925
8:05:52	29-MAR	476.87	28.09	119.12	2378.33	116.78	0.5689
8:07:52	29-MAR	478.87	30.09	119.03	2379.86	118.31	0.5473
8:12:52	29-MAR	483.87	35.09	118.80	2383.22	121.67	0.5005
8:17:52	29-MAR	488.87	40.09	118.60	2386.19	124.64	0.4618
8:22:52	29-MAR	493.87	45.09	118.42	2388.82	127.27	0.4290
8:27:52	29-MAR	498.87	50.09	118.24	2391.16	129.61	0.4009
8:32:52	29-MAR	503.87	55.09	118.04	2393.28	131.73	0.3765
8:37:52	29-MAR	508.87	60.09	117.88	2395.22	133.67	0.3550
8:42:52	29-MAR	513.87	65.09	117.72	2396.93	135.38	0.3360
8:47:52	29-MAR	518.87	70.09	117.55	2398.56	137.01	0.3190
8:52:52	29-MAR	523.87	75.09	117.41	2400.11	138.56	0.3037
8:57:52	29-MAR	528.87	80.09	117.27	2401.49	139.94	0.2898
9:02:52	29-MAR	533.87	85.09	117.14	2402.82	141.27	0.2772
9:07:52	29-MAR	538.87	90.09	117.03	2404.04	142.49	0.2657
9:12:52	29-MAR	543.87	95.09	116.92	2405.23	143.68	0.2551
9:17:52	29-MAR	548.87	100.09	116.82	2406.34	144.79	0.2453
9:22:52	29-MAR	553.87	105.09	116.73	2407.38	145.83	0.2363
9:27:52	29-MAR	558.87	110.09	116.64	2408.39	146.84	0.2280
9:32:52	29-MAR	563.87	115.09	116.56	2409.34	147.79	0.2202
9:37:32	29-MAR	568.53	119.75	116.49	2409.83	148.28	0.2134



STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

## REPORT OF WATER ENCOUNTERED DURING DRILLING

1. Well name and number: #1 Knockdhu UnitAPI number: 43-037-317732. Well Location: QQ NW Section NE Township 37S Range 25E County San Juan3. Well operator: Petral Exploration, LLCAddress: c/o McIlnay & Associates Inc.  
2305 Oxford Lane  
Casper, WY 82604Phone: (307) 265-43514. Drilling contractor: Four Corners Drilling - Rig 7Address: Box 1067Farmington, NM 87499Phone: (505) 326-3371

5. Water encountered (attach additional pages as needed):

DEPTH		VOLUME (FLOW RATE OR HEAD)	QUALITY (FRESH OR SALTY)
FROM	TO		
500	1100	Hole took water @ 8.4ppg	Probably fresh
3202	3207	1600 psi	Salty
4866	4908	2400 psi	Salty

6. Formation tops: 500 - 1100 Entrada - Morrison2664 - Cutler4551 - Honaker Trail

If an analysis has been made of the water encountered, please attach a copy of the report to this form.

I hereby certify that this report is true and complete to the best of my knowledge.

Date: April 16, 1996Name & Signature: Dr. D. D. D. D.

McIlnay &amp; Associates, Inc.

Title: Consulting Engineers

# facsimile

## TRANSMITTAL

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**to:** State of Utah, Division of Oil, Gas & Mining  
**fax #:** (801) 359-3940  
**re:** Petral Exploration, LLC, #1 Horseshoe Unit  
SW NW NE Sec. 33-T37S-R25E, San Juan Co., UT  
API 43-037-31773, Lease No. UTU 18452A  
**date:** May 3, 1996  
**pages:** 5, including cover sheet.

Attached is the weekly progress report on the above referenced well.

If you have any questions, please give us a call.

Sharon

From the desk of...

Sharon Orr

McInay & Associates, Inc.  
2305 Oxford Lane  
Casper, WY 82604

307 265-4351  
Fax: 307 473-1218

**4-27-96**

PBTD: 5954' KB

FMN: Upper Ismay Mound;

PERFS: 5684-5702', 5708-5726', 5726-5730', &amp; 5736-5740' RKB.

CSG: 5 1/2" / 15.5 #/FT.

TBG. SIZE: 2 3/8";

PACKER SET @ 5418' KB.

**DETAILS OF OPERATION:**

Well flowing with 120 psig on tubing and 50 psig on a 1 1/4" orifice. Flowing at a rate of 2.34 MMCFD. SI will and pumped 30 Bbls. treated water down tubing and 45 Bbls. down annulus to kill well. Released packer (SAP tool) and reset @ 5765' KB to check blank pipe. RU Dowell and tested lines to 4500 psig. Tested tubing and packer to 3500 psig. Dropped standing valve and the fluid control valve down the tubing. Used mechanical CCL to locate cased hole logged collar at 5736' KB or 5751' KB tubing measurements. Spotted 15% MSF-100 acid + 2% A261 to end of tubing. Started washing the perforations with 50 gal/l. of acid as follows:

Interval (Log Depth - KB)	Break Press. (Psig)	Treating Press. (psig)	Rate (BPM)
5740-5736	1320	360	1/2
5730-5726	1100	560	1 1/2
5722-5717	720	1000	1 1/2
5717-5711	700	1000	2
5711-5708	1200	960	2
5702-5697	1000	1200	2
5697-5691	1100	980	2
5691-5685	1200	850	2
5685-5684	600	850	1

Set packer at 5670' and tested blank pipe to 2500 psig. Pumped 30 Bbls. treated water down annulus to kill well. RU Dowell POH 9 lts and reset packer at 5418' KB. Fished the fluid control valve and standing valve with sandline. RU to swab. Made two swab runs and well started to flow. Flowed well to reserve pit for clean-up while rigging up production test unit, 400 Bbl. tank and high pressure methanol injection pump. Started production test at 7 PM (4-27-96). Flaring gas to flare pit.

**Flow Report**

Time	Tubing Pressure	Orifice Pressure	Est. Prod. (MMCFD)	Remarks
6:30 pm	700	70	3.063	4-26-96 PM
7:00	520	50	2.341	
7:30	600	50	2.341	
8:00	650	50	2.341	
9:00	620	50	2.341	
10:00	650	50	2.341	
11:00	650	50	2.341	
12:00 AM	650	50	2.341	4-27-96 AM
1:00	650	50	2.341	
2:00	650	50	2.341	Choke freezing
3:00	700	50	2.341	Choke freezing
4:00	750	50	2.341	
5:00	780	55	2.522	Dry, no water
6:00	860	55	2.341	
7:00	1120	50	2.341	

TIGHT HOLEDAILY COMPLETION REPORTS

Petral Exploration, L.L.C.  
 #1 Knockdhu Unit, UTU 75040X  
 API 43-037-31773  
 SW NW NE Sec. 33-T37S-R25E  
 San Juan Co., UT  
 BILL: UTU-18452A, Surf - UTU-65915

4-24-96

Rigged up Petro Wireline logging truck and mast truck. Ran gauge ring and junk basket from surface to 5947' K.B. Ran GR-CBL-CIL from 5927' to 4450'. Correlated cased hole logs to Schlumberger GR-BHCS(MD) open hole log. Cased hole log was 14' deep to Schlumberger log. Excellent cement bonding isolating zone to be perforated. Top of good cement at 4694'. Set a 400bbl. swab tank on location. MIRU Big "A" Well Service rig. Unloaded and tallied 187 Jts. 2 3/8" 4.7#/ft., J-55, 8rd, EUE, new tubing. Nippled up tubing head and pressured tested head to 3000 psig for 15 min. Nippled up B.O.P. Picked up and ran into hole with 182 Jts. 2 3/8" tubing. Tagged fill at 5954.20' K.B. CIW & SDFN.

Jeff Brown w/BLM inspected well site. Tim Bates w/Western Gas Producers will sample and analyze gas Monday.

Daily Cost \$ 14,869      Cum. Cost \$ 558,069      Rem. AFE \$ 94,590

4-25-96

POH with 2 3/8" tubing. Pressure tested the blind rams to 3000 psig for 15 minutes. Held OK. Picked up a 4 3/4" bit and 5 1/2" casing scraper and RII to PBTD 5954' KB. Reverse circulated the well clean with 150 bbls. of fresh water containing 1000ppm BIO-31 clay stabilizer. Pressure tested the pipe rams to 3000 psig for 15 minutes. Held OK. Layed down 7 Jts. of tubing. RU Dowell and spotted 3 bbls. of 15% HCL with inhibitor, iron sequestrant and surfactant from 5740 to 5614' KB. RD Dowell. Pulled 5 stands and rigged up to swab well down. In 4 hrs. swabbed well down to 3750' KB. CIW @ 8 PM & SDFN.

Daily Cost \$ 6805      Cum. Cost \$ 564,874      Rem AFE \$ 87,785

4-26-96

Opened up the well and started swabbing. Swabbed from 3750' to 4500' in 2 1/2 hours. POH with tubing. RU Petro Wireline with full lubricator. Logger found FL at 4431'.

Perforated Upper Ismay Mound as follows w/4 holes/ft. w/23 gr. charges:

5740-5736'    5730-5736'    5722-5708'    5702-5684'

All depths RKB correlated to open-hole GR-BHCS log.

Fluid level after perforating at 4200'. RD the perforators. PU Baker Special Application Packer(SAP), seat nipple and mechanical casing locator. RII with packer and 2 3/8" tubing. Checked depth of collar recorded by GR-CBL-CCL log( correlated to GR-BHCS) at 5300' with mechanical CCL, which measured depth of collar at 5313.7' KB. Set the packer at 5305' K.B. Rigged up Dowell. Small amount of gas coming out of tubing. Pumped 31 bbls. treated water down tubing to displace spotted 3 bbl. of acid. Initial pressure 2500psig at 1/4 bpm. Shut down twice allowing acid to soak the perforations. Pressure broke back to 1000 psig at 1/2 bpm. Finished displacing acid at 1/4 rate and pressure. RU to swab. Ran swab and found FL at 800'. Made 2 swab runs. Well began to flow while making 3rd. swab run. Flowed well to reserve pit for 2hrs. for clean up. NU flare line and 2" well head orifice tester. Put well on test at 6P.M. Flow rate was measured at 2.7 MMCFD utilizing a 1 1/4" orifice with 60 psig. Flowing tubing pressure 600 psig on a 1/8" choke. Well still unloading load water. A 2 man crew will monitor flow overnight. 4/27/96 at 6A.M. well producing at rate of 2.34 MMCFD. Measured with 1 1/4" orifice 50 psig. FTP 1100 psig with 1/8" choke.

Daily Cost \$ 7,665      Cum. Cost \$ 572,539      Rem. AFE \$ 80,120

Daily Completion Reports  
Petrul Exploration, LLC

Knoekdhu #1. UTU 18452A  
Page 3

**4-27-96 - Continued**

At 7 AM (4-28-96) well producing at a rate of 2.273 MMCFD with FTP of 1290 psig on 1/8" choke w/vessel pressure of 80 psig.

Daily Cost: \$ 13,759

Cum. Cost \$ 586,293

Rem. AFE. \$ 66,361

**4-28-96**

PRTD: 5954' KB FMN: Upper Ismay Mound;  
CSG: 5 1/2" / 15.5 #/FT. TBG. SIZE: 2 3/8"; PACKER SET @ 5418' KB.  
PERFS: 5684-5702', 5708-5726', 5726-5730', & 5736-5740' RKB.

**DETAILS OF OPERATION:**

Flow testing well. Well choke set at 1/8", orifice plate 2.125". Shut in tubing pressure at start of flow test through production unit 1600 psig (7:25 P.M. 4/27/96). Tubing flow pressure after 24 hours flow testing measured at 1200 psig (7:30 P.M. 4/28/96). Production rate after 24 hours production testing appears to have stabilized at 2.376 MMCFD. In 24 hours well has produced 28.44 bbls. of condensate and 5.01 bbls. water. See attached "Well Test Data Sheet" for details.

At 7 A.M. (4/29/96) well producing at stabilized rate of 2.376 MMCFD w/ FTP 1200 psig. In last 12 hours 14.18 bbls condensate and 0 Bbls. of water have been produced. Plan on killing the well this A.M., POH with tubing and packer, run production string, swab well in, continue flow test until 4/30/96 A.M. and then run Schlumberger production log for purpose of determining volume being contributed by each perforated zone.

Daily Cost \$ 1,220

Cum. Cost \$ 587,518

Rem. AFE \$ 65,141

**4-29-96**

PBTD: 5954' KB FMN: Upper Ismay Mound;  
CSG: 5 1/2" / 15.5 #/FT. TBG. SIZE: 2 3/8" @ 5573.60', (170 Jts.)  
PERFS: 5684-5702', 5708-5726', 5726-5730', & 5736-5740' RKB.

**DETAILS OF OPERATION:**

Flow tested the well until 8 AM. Well has been stable for the last 12 Hrs. Flowing tubing pressure 1200 psig on 8/64 choke, production rate of 2376 MCFD. Produced 0 water, 14.18 Bbls. condensate in last 12 Hrs. Shut well in. Pumped 30 Bbls. of treated water down the tubing. Released packer and reverse circulated treated water down the annulus to kill the well. POH w/tubing and packer. Laid down the packer and RUI with production string.

**Tubing String**

1	Tubing Collar	0.40
1	Jt. 2 3/8", 4.7#/ft., J-55, EUE tubing	32.73
1	Seating Nipple	1.10
169	Jts. 2 3/8", 4.7#/ft., J-55, EUE tubing	5531.37
	Total String	5565.60
	Below KB	8.00
	Tubing set at	5573.60' KB

Nipped down BOP and NU wellhead.  
See attached flow test.

Daily Cost: \$ 7,995

Cum. Cost \$ 595,513

Rem. AFE \$ 57,146

**4-30-96**

PRTD: 5954' KB FMN: Upper Ismay Mound,  
CSG: 5 1/2" / 15.5 #/FT. TBG. SIZE: 2 3/8" @ 5573.60', (170 Jts.)  
PERFS: 5684-5702', 5708-5726', 5726-5730', & 5736-5740' RKB.

**DETAILS OF OPERATION:**

RU to swab. Made 8 runs and recovered ~ 70 Bbls. gassy water. 80 Bbls. load left to recover. Flowed water to the reserve pit while changing out the meter on the production unit. Borrowed a higher range meter from Western Gas Processors. Started flowing gas through the separator at ~ 11:11 A.M. and began metering at 5 PM. Meter orifice is now 2.125".

Daily Completion Reports  
Petrar Exploration, L.L.C.

Knoekdhu #1. UTU 18452A  
Page 3

**4-27-96 - Continued**

At 7 AM (4-28-96) well producing at a rate of 2.273 MMCFD with FTP of 1290 psig on 1/8" choke w/vessel pressure of 80 psig.

Daily Cost: \$ 13,759

Cum. Cost \$ 586,293

Rem. AFE \$ 66,361

**4-28-96**

PBTD: 5954' KB FMN: Upper Ismay Mound;  
CSG: 5 1/2" / 15.5 #/FT. TBG. SIZE: 2 3/8"; PACKER SET @ 5418' KB.  
PERFS: 5684-5702', 5708-5726', 5726-5730', & 5736-5740' RKB.

**DETAILS OF OPERATION:**

Flow testing well. Well choke set at 1/8", orifice plate 2.125". Shut in tubing pressure at start of flow test through production unit 1600 psig (7:25 P.M. 4/27/96). Tubing flow pressure after 24 hours flow testing measured at 1200 psig (7:30 P.M. 4/28/96). Production rate after 24 hours production testing appears to have stabilized at 2.376 MMCFD. In 24 hours well has produced 28.44 bbls. of condensate and 5.01 bbls. water. See attached "Well Test Data Sheet" for details.

At 7 A.M. (4/29/96) well producing at stabilized rate of 2.376 MMCFD w/ FTP 1200 psig. In last 12 hours 14.18 bbls condensate and 0 Bbls. of water have been produced. Plan on killing the well this A.M., POH with tubing and packer, run production string, swab well in, continue flow test until 4/30/96 A.M. and then run Schlumberger production log for purpose of determining volume being contributed by each perforated zone.

Daily Cost \$ 1,220

Cum. Cost \$ 587,518

Rem. AFE \$ 65,141

**4-29-96**

PBTD: 5954' KB FMN: Upper Ismay Mound;  
CSG: 5 1/2" / 15.5 #/FT. TBG. SIZE: 2 3/8" (@ 5573.60', (170 Jts.)  
PERFS: 5684-5702', 5708-5726', 5726-5730', & 5736-5740' RKB.

**DETAILS OF OPERATION:**

Flow tested the well until 8 AM. Well has been stable for the last 12 Hrs. Flowing tubing pressure 1200 psig on 8/64 choke, production rate of 2376 MCFD. Produced 0 water, 14.18 Bbls. condensate in last 12 Hrs. Shut well in. Pumped 30 Bbls. of treated water down the tubing. Released packer and reverse circulated treated water down the annulus to kill the well. POH w/tubing and packer. Laid down the packer and RUI with production string.

**Tubing String**

1	Tubing Collar	0.40
1	Jt. 2 3/8", 4.7#/ft., J-55, EUE tubing	32.73
1	Seating Nipple	1.10
169	Jts. 2 3/8", 4.7#/ft., J-55, EUE tubing	5531.37
	Total String	5565.60
	Below KB	8.00
	Tubing set at	5573.60' KB

Nippled down BOP and NU wellhead.  
See attached flow test.

Daily Cost: \$ 7,995

Cum. Cost \$ 595,513

Rem. AFE \$ 57,146

**4-30-96**

PBTD: 5954' KB FMN: Upper Ismay Mound;  
CSG: 5 1/2" / 15.5 #/FT. TBG. SIZE: 2 3/8" (@ 5573.60', (170 Jts.)  
PERFS: 5684-5702', 5708-5726', 5726-5730', & 5736-5740' RKB.

**DETAILS OF OPERATION:**

RU to swab. Made 8 runs and recovered ~ 70 Bbls. gassy water. 80 Bbls. load left to recover. Flowed water to the reserve pit while changing out the meter on the production unit. Borrowed a higher range meter from Western Gas Processors. Started flowing gas through the separator at 4 PM. Adjusted production equipment. Began testing at 5 PM. Meter orifice is now 2.250".

Daily Completion Reports  
Petal Exploration, LLC

Knockdhu #1, UTU 18452A  
Page 4

#### 4-30-96 - Continued

Tim Dates with Western Gas ran a chromatograph analysis of the gas copy attached. Also, took a gas sample to Farmington to be analyzed.

Rigged down and released Dig "A" Well Service rig. Flowed the well while producing the load water. The well is not stable. Approx. 59 Bbls. load left to recover at 6 PM. (Only an estimate as some of the water was flowed to the pit). The production rate will be kept at about 2 MMCFD throughout the night.

Time	FTP	PCP	MMCFD	BO	DW	Choke	Orifice	Unit Pressure	REMARKS
4:00 pm	200	700	1.309	4.17	5.01	40	2.250	50	Started through meter, Adj. choke and back press.
5:00	240	525	1.515	3.34	2.50	40	2.250	55	

Daily Cost: \$ 2,420

Cum. Cost \$ 597,933

Rem. AFE \$ 54,726

#### 5-1-96

PBTD: 5954' KB FMN: Upper Ismay Mound;  
CSG: 5 1/2" / 15.5 #/FT. TBG. SIZE: 2 3/8" @ 5573.60', (187 Jts.) SN @ 5540.87'  
PERFS: 5684-5702', 5708-5726', 5726-5730', & 5736-5740' RKB.

#### DETAILS OF OPERATIONS:

Well was not producing as expected due to load water in the annulus. Shut well in @ 8:30 AM and surged it several times. Then shut well in until 10:00 AM. The casing pressure built to 900 psig, tubing pressure to 800 psig. Flowed well to pit on a 31/64" choke while bypassing the separator. AT 12:30 PM the pressures had stabilized at 324 psig on the tubing and 600 psig on the casing. Started injecting liquid soap down the annulus and put the well on test through the separator. Rigged up Schlumberger and ran GR-CCL-Pressure-Temperature-Fluid density-Spinner logs to determine which perfs are producing what percentage of the total production. RD Schlumberger. Dropped a soap stick down the tubing and waited 1/2 hour. Put the well back on flow test at 8 PM. Casing pressure was 1125 psig. FTP 1000 psig. 19/64" choke, 2.250 orifice plate, 1.940 MMCFD. A step flow test will be attempted. It is our understanding pressure on the Questar line often runs from 700 - 800 psig.

Jeff Brown w/BLM stopped @ 5 PM. He will return tomorrow to help pick the pipeline route. He is also going to get an estimate of the required ROW for the pipeline. A pipeline survey will not be required, but an archaeological survey of the route will be required. The BLM biologist will tell us if there is a problem during any hiatus in the work but he does not foresee any problems at this time.

Sent 2 gas samples and 1 oil sample to Onsite Technologies in Farmington, NM via Schlumberger.

See attached flow report.

Daily Cost: \$ 12,672

Cum. Cost \$ 610,605

Rem. AFE \$ 42,054

#### 5-2-96

PBTD: 5954' KB FMN: Upper Ismay Mound;  
CSG: 5 1/2" / 15.5 #/FT. TBG. SIZE: 2 3/8" @ 5573.60', (187 Jts.) SN @ 5540.87'  
PERFS: 5684-5702', 5708-5726', 5726-5730', & 5736-5740' RKB.

#### DETAILS OF OPERATIONS:

Continued flow testing the well. The well produced no fluid during the night. Flow tested until 4:00 pm. Produced the well at decreasing flowing tubing pressure, about 2 hours to reach production. Continued injecting liquid soap down the annulus and methanol into the tubing head. See the attached Flow Test Report. The master valve was stiff when the well was shut-in, possible ice in the valve. Testing equipment released.

Daily Cost: \$ 2,608

Cum. Cost \$ 613,213

Rem. AFE \$ 39,446

Plan on starting installation of surface production equipment next week (5/6/96). Final report until well placed on production.



CORE LABORATORIES

title hole

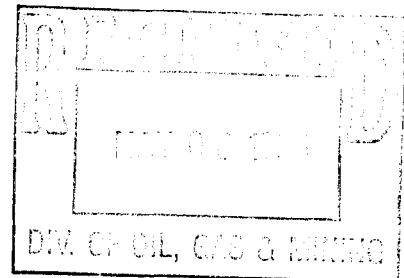
**CORE ANALYSIS RESULTS**

for

**Petral Exploration, LLC  
#1 Knockdhu Unit  
Wildcat  
San Juan Co., Utah  
57122-8003**

CONFIDENTIAL

CONFIDENTIAL





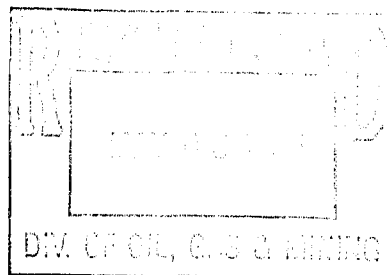


## CORE LABORATORIES

April 26, 1996

Mr. Ed McInay  
McInay & Assocs.  
2305 Oxford Ln.  
Casper, WY 82604

*Subject:*  
*Core Analysis Project*  
*Petral Exploration, LLC*  
*#1 Knockdhu Unit*  
*San Juan Co., Utah*  
*File Number: 57122-8003*



Dear Mr. McInay:

Core Laboratories was requested to retrieve and analyze core material obtained from the subject well. The following tests were performed and the results are presented in graphical and tabular formats within this report:

1. Full Diameter Core Analysis
2. Total Gamma
3. "Quick" plug analysis (CMS Section)

Thank you for the opportunity to perform this study for Petral. Should you have any questions pertaining to these test results or if we may be of further assistance, please contact us at (307) 265-2731.

Very truly yours,

David A. Foster  
Supervisor

# CORE LABORATORIES

Company : Petral Exploration, LLC  
 Well : #1 Knockdhu Unit  
 Location : NW NE Sec 33 T37S R25E  
 Co,State : San Juan, Utah

Field : Wildcat  
 Formation : Ismay/Desert Creek  
 Coring Fluid : Water Base Mud  
 Elevation : 5568 GR

File No.: 57122-8003  
 Date : 5-Apr-1996  
 API No. :  
 Analysts: DF SS

## C O R E   A N A L Y S I S   R E S U L T S

SAMPLE NUMBER	DEPTH  ft	PERMEABILITY		POROSITY (HELIUM)  %	SATURATION		GRAIN DENSITY  gm/cc	DESCRIPTION
		(MAXIMUM) Kair md	(90 DEG) Kair md		(PORE VOLUME) OIL %	WATER %		
Core No. 1 5700.0-5760.0 Cut 60.0' Rec. 60.0'								
1	5700.0- 01.0	0.10	0.05	4.2	0.0	41.1	2.82	Ls gry duc dol
2	5701.0- 02.0	0.61	0.55	6.4	0.0	34.5	2.78	Ls gry duc dol
3	5702.0- 03.0	4.19	3.88	11.8	0.6	20.8	2.84	Dol gry suc
4	5703.0- 04.0	2.84	2.84	11.9	0.0	15.0	2.84	Dol gry suc
5	5704.0- 05.0	3.02	2.33	13.0	1.4	42.4	2.86	Dol gry suc
6	5705.0- 06.0	1.50	1.50	11.6	0.0	7.6	2.84	Dol gry suc
7	5706.0- 07.0	1.67	1.20	9.4	0.0	17.4	2.85	Dol gry suc
8	5707.0- 08.0	0.34	0.21	5.1	0.0	30.9	2.85	Dol gry suc
9	5708.0- 09.0	0.09	0.02	3.3	0.0	53.5	2.85	Dol gry suc 1my
10	5709.0- 10.0	0.14	0.08	9.8	0.0	88.4	2.81	Dol gry suc
11	5710.0- 11.0	0.12	0.06	3.8	0.0	28.4	2.85	Dol dk gry suc 1my
12	5711.0- 12.0	1.50	1.22	7.3	1.0	13.4	2.86	Dol gry suc
13	5712.0- 13.0	0.31	0.30	6.0	0.0	33.0	2.85	Dol gry suc
14	5713.0- 14.0	0.05	0.05	2.3	0.9	21.7	2.83	Dol gry suc
15	5714.0- 15.0	2.41	1.55	3.2	0.0	18.4	2.80	Ls gry xln dol
16	5715.0- 16.0	0.02	0.02	1.1	0.0	42.8	2.75	Ls gry xln
17	5716.0- 17.0	0.31	0.26	2.3	0.0	30.7	2.77	Ls gry xln
18	5717.0- 18.0	0.01	<.01	1.6	0.0	17.9	2.75	Ls gry xln
19	5718.0- 19.0	0.16	0.14	2.9	0.0	15.9	2.77	Ls gry xln
20	5719.0- 20.0	0.27	0.22	2.7	0.0	48.1	2.77	Ls gry xln
21	5720.0- 21.0	0.77	0.68	5.4	0.0	29.7	2.75	Ls gry xln vug
22	5721.0- 22.0	4.35	3.51	7.4	0.0	19.2	2.75	Ls gry xln vug
23	5722.0- 23.0	2.90	1.82	6.5	0.0	5.2	2.76	Ls gry xln vug

Data, Full Diameter 1 - 1

# CORE LABORATORIES

Company : Petral Exploration, LLC  
Well : #1 Knockdhu Unit

Field : Wildcat  
Formation : Ismay/Desert Creek

File No.: 57122-8003  
Date : 5-Apr-1996

## C O R E   A N A L Y S I S   R E S U L T S

SAMPLE NUMBER	DEPTH  ft	PERMEABILITY		POROSITY (HELIUM)  %	SATURATION		GRAIN DENSITY  gm/cc	DESCRIPTION
		(MAXIMUM) K <sub>air</sub> md	(90 DEG) K <sub>air</sub> md		(PORE VOLUME) OIL %	WATER %		
24	5723.0- 24.0	8.29	7.69	9.2	1.0	14.2	2.74	Ls gry xln vug
25	5724.0- 25.0	3.30	2.69	8.6	1.6	11.0	2.73	Ls gry xln vug
26	5725.0- 26.0	6.65	3.15	9.7	0.0	10.4	2.74	Ls gry xln vug
27	5726.0- 27.0	9.06	7.07	9.0	0.0	14.7	2.73	Ls gry xln vug
28	5727.0- 28.0	5.98	5.52	9.5	0.0	10.0	2.73	Ls gry xln vug
29	5728.0- 29.0	2.28	2.02	7.1	0.0	11.8	2.77	Ls gry xln vug
30	5729.0- 30.0	6.75	3.12	9.0	0.0	16.6	2.74	Ls gry xln vug
31	5730.0- 31.0	2.54	1.58	7.6	0.0	10.3	2.73	Ls gry xln vug
32	5731.0- 32.0	2.25	1.97	7.8	0.0	11.9	2.75	Ls gry xln vug
33	5732.0- 33.0	2.30	2.20	7.1	1.1	10.0	2.74	Ls gry xln vug
34	5733.0- 34.0	6.70	4.07	5.9	0.9	15.2	2.75	Ls gry xln vug
35	5734.0- 35.0	0.33	0.21	3.3	0.0	13.7	2.76	Ls gry xln vug
36	5735.0- 36.0	0.34	0.32	4.1	0.0	11.2	2.76	Ls gry xln vug
37	5736.0- 37.0	0.02	0.02	2.8	0.0	41.9	2.74	Ls gry xln
38	5737.0- 38.0	0.09	0.04	2.3	0.0	28.5	2.75	Ls gry xln
39	5738.0- 39.0	0.17	0.13	2.0	0.0	57.7	2.70	Ls gry xln shy
40	5739.0- 40.0	0.04	0.02	13.7	0.0	46.8	2.86	Dol dk brn suc
41	5740.0- 41.0	0.06	0.06	12.6	0.0	61.8	2.74	Ls dk brn suc dol
42	5741.0- 42.0	0.87	0.87	1.4	0.0	35.2	2.76	Ls dk gry xln
43	5742.0- 43.0	0.04	0.04	0.7	0.0	31.3	2.70	Ls dk gry xln foss
44	5743.0- 44.0	0.01	0.01	0.2	8.9	35.6	2.69	Ls dk gry xln foss
45	5744.0- 45.0	0.01	<.01	0.7	14.2	47.4	2.70	Ls dk gry xln foss
46	5745.0- 46.0	0.09	<.01	0.1	5.8	69.8	2.73	Ls dk gry xln foss shy
47	5746.0- 47.0	0.41	0.26	1.6	0.0	78.6	2.73	Ls dk gry xln foss shy
48	5747.0- 48.0	0.03	0.02	0.1	9.3	42.3	2.68	Ls gry suc foss
49	5748.0- 49.0	0.30	0.28	15.3	8.1	29.7	2.88	Dol gry suc
50	5749.0- 50.0	1.88	0.76	17.3	0.6	47.4	2.83	Dol gry suc anhy
51	5750.0- 51.0	2.74	2.49	20.7	8.3	33.3	2.83	Dol gry suc anhy
52	5751.0- 52.0	0.05	0.05	1.1	0.0	26.7	2.76	Ls gry xln brec

Data, Full Diameter 1 - 2

# CORE LABORATORIES

Company : Petral Exploration, LLC  
Well : #1 Knockdhu Unit

Field : Wildcat  
Formation : Ismay/Desert Creek

File No.: 57122-8003  
Date : 5-Apr-1996

## C O R E   A N A L Y S I S   R E S U L T S

SAMPLE NUMBER	DEPTH ft	PERMEABILITY		POROSITY (HELIUM) %	SATURATION		GRAIN DENSITY gm/cc	DESCRIPTION
		(MAXIMUM) K <sub>air</sub> md	(90 DEG) K <sub>air</sub> md		(PORE VOLUME) OIL %	WATER %		
53	5752.0- 53.0	0.27	0.04	0.8	0.0	49.1	2.77	Ls gry xln brec
54	5753.0- 54.0	0.09	0.08	1.1	0.0	22.7	2.76	Ls gry xln brec
55	5754.0- 55.0	0.04	0.03	1.7	0.0	12.2	2.76	Ls gry xln brec
56	5755.0- 56.0	0.06	0.02	1.2	0.0	17.9	2.74	Ls gry xln anhy
57	5756.0- 57.0	0.46	0.37	9.7	0.0	13.3	2.83	Do1 gry xln lmy anhy
58	5757.0- 58.0	0.12	0.11	2.8	0.0	26.6	2.81	Ls gry xln do1 anhy
59	5758.0- 59.0	0.16	0.06	2.1	0.0	26.1	2.79	Ls gry xln
60	5759.0- 60.0	0.11	0.07	9.0	0.0	74.0	2.84	Do1 gry suc
Core No. 2 5760.0-5823.0 Cut 63.0' Rec. 62.0'								
61	5760.0- 61.0	0.81	0.09	2.9	36.7	10.5	2.77	Ls dk gry suc shy
62	5761.0- 62.0	0.07	0.04	2.0	31.1	12.4	2.71	Ls dk gry suc
63	5762.0- 63.0	0.05	0.01	1.1	35.6	14.2	2.71	Ls dk gry suc
64	5763.0- 64.0	0.02	0.02	1.1	28.6	11.4	2.71	Ls dk gry suc
65	5764.0- 65.0	0.32	0.07	1.2	28.5	11.4	2.71	Ls dk gry suc
66	5765.0- 66.0	0.03	0.02	2.1	35.9	10.3	2.71	Ls dk gry suc
67	5766.0- 67.0	0.02	0.02	0.5	0.0	15.7	2.73	Ls gry xln
68	5767.0- 68.0	0.25	0.11	0.4	0.0	15.8	2.72	Ls gry xln shy
69	5768.0- 69.0	0.08	0.05	1.0	0.0	34.8	2.73	Ls gry xln shy
70	5769.0- 70.0	1.08	0.15	1.1	0.0	14.5	2.73	Ls gry xln shy
71	5770.0- 71.0	<.01	<.01	1.5	7.9	31.8	2.75	Ls gry xln
72	5771.0- 72.0	0.01	0.01	7.6	0.0	48.0	2.73	Ls gry xln
73	5772.0- 73.0	<.01	<.01	1.7	0.0	28.9	2.78	Ls gry xln anhy
74	5773.0- 74.0	3.35	2.10	7.7	0.0	32.6	2.83	Do1 gry suc anhy
75	5774.0- 75.0	2.02	1.83	12.0	0.0	41.4	2.85	Do1 gry suc anhy
76	5775.0- 76.0	16.1	13.8	11.5	0.0	21.4	2.79	Do1 gry suc lmy
77	5776.0- 77.0	1.86	1.48	7.9	0.9	26.3	2.80	Do1 gry suc lmy
78	5777.0- 78.0	0.76	0.69	5.7	2.1	34.9	2.82	Do1 gry suc anhy

Data, Full Diameter 1 - 3

# CORE LABORATORIES

Company : Petral Exploration, LLC  
Well : #1 Knockdhu Unit

Field : Wildcat  
Formation : Ismay/Desert Creek

File No.: 57122-8003  
Date : 5-Apr-1996

## C O R E   A N A L Y S I S   R E S U L T S

SAMPLE NUMBER	DEPTH  ft	PERMEABILITY		POROSITY (HELIUM)  %	SATURATION		GRAIN DENSITY  gm/cc	DESCRIPTION
		(MAXIMUM) K <sub>air</sub> md	(90 DEG) K <sub>air</sub> md		(PORE VOLUME) OIL %	WATER %		
79	5778.0- 79.0	0.17	0.14	3.9	1.6	10.9	2.82	Do1 gry suc
80	5779.0- 80.0	1.74	1.19	9.6	0.0	38.3	2.81	Do1 gry suc
81	5780.0- 81.0	0.31	0.25	8.5	0.8	51.2	2.77	Ls gry/brn suc
82	5781.0- 82.0	0.67	0.57	14.4	0.4	43.3	2.84	Ls gry/brn suc
83	5782.0- 83.0	0.19	0.17	4.6	0.4	17.0	2.79	Ls gry/brn suc anhy
84	5783.0- 84.0	0.07	0.07	3.4	0.0	25.8	2.74	Ls gry/brn suc
85	5784.0- 85.0	4.21	3.96	17.1	0.5	20.8	2.83	Do1 gry suc
86	5785.0- 86.0	0.14	0.13	5.9	0.6	11.8	2.75	Ls gry suc
87	5786.0- 87.0	0.01	0.01	0.6	0.0	20.9	2.74	Ls gry suc
88	5787.0- 88.0	0.04	<.01	9.6	0.7	38.9	2.79	Ls gry suc do1
89	5788.0- 89.0	0.02	0.02	2.6	9.7	58.1	2.70	Ls gry suc
	5789.0- 22.0							Sh -- No Analysis
	5822.0- 23.0							Lost core
Core No. 3 5977.0-6018.0 Cut 41.0' Rec. 39.5'								
90	5977.0- 78.0	0.09	0.08	3.5	0.0	59.2	2.67	Ls dk gry suc do1 sdy
91	5978.0- 79.0	0.23	0.20	8.6	0.0	48.0	2.79	Ls dk gry suc do1 sdy
92	5979.0- 80.0	8.63	0.69	2.3	0.0	56.1	2.81	Ls dk gry suc do1 sdy
93	5980.0- 81.0	0.08	0.03	8.0	0.0	72.1	2.69	Ls dk gry suc do1 sdy
94	5981.0- 82.0	0.04	0.02	7.2	0.0	60.0	2.65	Ls dk gry suc do1 sdy
95	5982.0- 83.0	0.06	0.02	6.7	0.0	46.1	2.67	Ls dk gry suc do1 sdy
96	5983.0- 84.0	0.04	0.03	5.0	0.0	65.2	2.61	Ls dk gry suc do1 sdy
97P	5984.0- 85.0	0.13		13.4	3.1	40.9		Ls dk gry suc do1 sdy
98	5985.0- 86.0	0.02	0.02	4.8	0.0	83.8	2.61	Ls dk gry suc do1 sdy
99	5986.0- 87.0	7.82	0.66	1.7	0.0	86.2	2.63	Ls dk gry suc do1 sdy
100	5987.0- 88.0	0.03	<.01	0.1	0.0	63.7	2.65	Ls dk gry suc do1 slty
101	5988.0- 89.0	<.01	<.01	0.1	0.0	85.4	2.63	Ls dk gry suc do1 shy
102	5989.0- 90.0	<.01	<.01	0.1	0.0	75.9	2.62	Ls dk gry suc do1 shy

Data, Full Diameter 1 - 4

# CORE LABORATORIES

Company : Petral Exploration, LLC  
Well : #1 Knockdhu Unit

Field : Wildcat  
Formation : Ismay/Desert Creek

File No.: 57122-8003  
Date : 5-Apr-1996

## C O R E   A N A L Y S I S   R E S U L T S

SAMPLE NUMBER	DEPTH  ft	PERMEABILITY		POROSITY (HELIUM)  %	SATURATION		GRAIN DENSITY  gm/cc	DESCRIPTION
		(MAXIMUM) Kair md	(90 DEG) Kair md		(PORE VOLUME) OIL %	WATER %		
103	5990.0- 91.0	<.01	<.01	0.1	0.0	44.6	2.64	Ls dk gry suc dol shy
104	5991.0- 92.0	<.01	<.01	0.1	0.0	72.9	2.62	Ls dk gry suc dol shy
105	5992.0- 93.0	<.01	<.01	0.1	0.0	80.3	2.63	Ls dk gry suc dol shy
106	5993.0- 94.0	<.01	<.01	0.2	0.0	77.8	2.63	Ls dk gry suc dol shy
107	5994.0- 95.0	0.01	<.01	0.8	0.0	73.9	2.66	Ls dk gry suc foss shy
108	5995.0- 96.0	0.01	<.01	2.6	9.3	79.2	2.67	Ls dk gry suc foss shy
109	5996.0- 97.0	0.05	0.04	7.4	13.0	70.7	2.72	Ls dk gry suc dol shy
110	5997.0- 98.0	0.01	0.01	0.5	0.0	91.0	2.64	Ls dk gry suc shy
111	5998.0- 99.0	<.01	<.01	0.1	0.0	74.4	2.65	Ls dk gry suc shy
112	5999.0- 00.0	<.01	<.01	0.1	0.0	69.0	2.66	Ls gry suc shy
113	6000.0- 01.0	0.01	<.01	2.3	6.4	77.0	2.71	Ls gry suc shy
114	6001.0- 02.0	<.01	<.01	0.3	0.0	74.1	2.67	Ls gry suc shy
115	6002.0- 03.0	<.01	<.01	0.4	0.0	86.8	2.66	Ls gry suc shy
116	6003.0- 04.0	<.01	<.01	0.3	11.6	61.7	2.67	Ls gry suc shy
	6004.0- 16.0							Sh -- No Analysis

p=Plug Sample

# CORE LABORATORIES

Company : Petral Exploration, LLC  
Well : #1 Knockdhu Unit

Field : Wildcat  
Formation : ISMAY

File No.: 57122-8003  
Date : 5-Apr-1996

## TABLE I

### SUMMARY OF CORE DATA

ZONE AND CUTOFF DATA		CHARACTERISTICS REMAINING AFTER CUTOFFS			
ZONE:		ZONE:		PERMEABILITY:	
Identification -----	Ismay	Number of Samples -----	89	Flow Capacity -----	127.1 md-ft
Top Depth -----	5700.0 ft	Thickness Represented -	89.0 ft	Arithmetic Average ----	1.43 md
Bottom Depth -----	5823.0 ft			Geometric Average -----	0.30 md
Number of Samples -----	89			Harmonic Average -----	0.06 md
DATA TYPE:		POROSITY:		Minimum -----	0.01 md
Porosity -----	(HELIUM)	Storage Capacity -----	507.1 $\phi$ -ft	Maximum -----	16.1 md
Permeability -----	(MAXIMUM) Kair	Arithmetic Average ----	5.7 %	Median -----	0.30 md
		Minimum -----	0.1 %	Standard Dev. (Geom) --	$K \cdot 10^{\pm 0.875}$ md
		Maximum -----	20.7 %		
		Median -----	4.2 %		
		Standard Deviation ----	$\pm 4.7$ %		
CUTOFFS:		GRAIN DENSITY:		HETEROGENEITY (Permeability):	
Porosity (Minimum) -----	0.0 %			Dykstra-Parsons Var. --	0.915
Porosity (Maximum) -----	100.0 %			Lorenz Coefficient ----	0.560
Permeability (Minimum) ---	0.0000 md	Arithmetic Average ----	2.77 gm/cc	AVERAGE SATURATIONS (Pore Volume):	
Permeability (Maximum) ---	100000. md	Minimum -----	2.68 gm/cc	Oil -----	1.6 %
Water Saturation (Maximum)	100.0 %	Maximum -----	2.88 gm/cc	Water -----	29.2 %
Oil Saturation (Minimum) -	0.0 %	Median -----	2.76 gm/cc		
Grain Density (Minimum) --	2.00 gm/cc	Standard Deviation ----	$\pm 0.05$ gm/cc		
Grain Density (Maximum) --	3.00 gm/cc				
Lithology Excluded -----	NONE				

# CORE LABORATORIES

Company : Petral Exploration, LLC  
Well : #1 Knockdhu Unit

Field : Wildcat  
Formation : ISMAY

File No.: 57122-8003  
Date : 5-Apr-1996

## TABLE II

### SUMMARY OF CORE DATA

ZONE AND CUTOFF DATA		CHARACTERISTICS REMAINING AFTER CUTOFFS			
ZONE:		ZONE:		PERMEABILITY:	
Identification -----	Desert Creek	Number of Samples -----	27	Flow Capacity -----	17.3 md-ft
Top Depth -----	5977.0 ft	Thickness Represented -	27.1 ft	Arithmetic Average ----	0.64 md
Bottom Depth -----	6016.5 ft			Geometric Average -----	0.02 md
Number of Samples -----	27	POROSITY:		Harmonic Average -----	0.01 md
DATA TYPE:		Storage Capacity -----	77.9 $\phi$ -ft	Minimum -----	0.00 md
Porosity -----	(HELIUM)	Arithmetic Average ----	2.9 %	Maximum -----	8.63 md
Permeability -----	(MAXIMUM) Kair	Minimum -----	0.1 %	Median -----	0.01 md
CUTOFFS:		Maximum -----	13.4 %	Standard Dev. (Geom) --	$K \cdot 10^{\pm 0.897}$ md
Porosity (Minimum) -----	0.0 %	Median -----	0.8 %	HETEROGENEITY (Permeability):	
Porosity (Maximum) -----	100.0 %	Standard Deviation ----	$\pm 3.6$ %	Dykstra-Parsons Var. --	0.831
Permeability (Minimum) ---	0.0000 md	GRAIN DENSITY:		Lorenz Coefficient ----	0.908
Permeability (Maximum) ---	100000. md	Arithmetic Average ----	2.66 gm/cc	AVERAGE SATURATIONS (Pore Volume):	
Water Saturation (Maximum)	100.0 %	Minimum -----	2.61 gm/cc	Oil -----	2.4 %
Oil Saturation (Minimum) -	0.0 %	Maximum -----	2.81 gm/cc	Water -----	60.3 %
Grain Density (Minimum) --	2.00 gm/cc	Median -----	2.66 gm/cc		
Grain Density (Maximum) --	3.00 gm/cc	Standard Deviation ----	$\pm 0.05$ gm/cc		
Lithology Excluded -----	NONE				



## CORE LABORATORIES

Company : Petral Exploration, LLC  
Well : #1 Knockdhu Unit

Field : Wildcat  
Formation : Ismay/Desert Creek

File No.: 57122-8003  
Date : 5-Apr-1996

### ANALYTICAL PROCEDURES AND QUALITY ASSURANCE

#### HANDLING & CLEANING

Core Transportation : Core Lab, Hot Shot  
Solvent : Toluene  
Extraction Equipment : CO2/Toluene Core Cleaner  
Extraction Time : 2 Days  
Drying Equipment : Dry Oven  
Drying Time : 24 Hours  
Drying Temperature : 210 F

#### ANALYSIS

Grain volume measured by Boyle's Law in a matrix cup using He  
Bulk volume measured by calipering  
Fluid saturations by retort  
Core Gamma Composite

#### REMARKS

Some quick plug were run for quick turn-around. Core slabs to Rose Expl.

# CORE LABORATORIES

Company : Petral Exploration, LLC  
 Well : #1 Knockdhu Unit  
 Location : NW NE Sec 33 T37S R25E  
 Co,State : San Juan, Utah

Field : Wildcat  
 Formation : Ismay/Desert Creek  
 Coring Fluid : Water Base Mud  
 Elevation : 5568 GR

File No.: 57122-8003  
 Date : 5-Apr-1996  
 API No. :  
 Analysts: DF SS

## C M S - 2 0 0 T E S T D A T A

SAMPLE NUMBER	DEPTH ft	NOB PRESSURE psi	PORE VOLUME cc	POROSITY %	K <sub>∞</sub> md	K <sub>air</sub> (est) md	b (He) psi	BETA ft(-1)	ALPHA microns
4	5703.0	800.0	2.73	11.6	4.19	4.67	5.68	3.0828E10	4.16023E2
6	5705.0	800.0	2.86	12.0	1.28	1.67	16.40	5.9196E10	2.43204E2
12	5711.0	800.0	2.07	8.5	0.131	0.192	29.61	1.5644E12	6.50736E2
14	5713.0	800.0	2.03	8.1	0.189	0.267	25.83	1.2460E12	7.52296E2
24	5723.0	800.0	1.78	8.3	0.143	0.210	29.93	1.4488E13	6.56527E3
27	5726.0	800.0	2.35	10.9	0.558	0.785	23.45	1.0166E12	1.81153E3
29	5728.0	800.0	2.29	9.4	0.861	1.08	14.18	1.1207E12	3.08568E3
41	5740.0	800.0	3.76	15.6	0.076	0.116	35.18	3.1356E12	7.59409E2
49	5748.0	800.0	2.40	12.3	1.43	1.80	13.79	8.8509E10	4.07988E2
51	5750.0	800.0	3.59	14.7	0.283	0.354	15.10	2.8795E11	2.60476E2
58	5757.0	800.0	0.47	1.9	0.057	0.068	13.55	3.0535E13	5.55719E3
81	5780.0	800.0	2.02	8.2	0.067	0.109	42.34	1.2419E13	2.66560E3
85	5784.0	800.0	2.09	8.8	0.915	1.03	6.79	1.0068E12	2.95455E3
88	5787.0	800.0	1.86	7.6	0.005	0.012	97.12	6.0754E14	1.02506E4

# CORE LABORATORIES

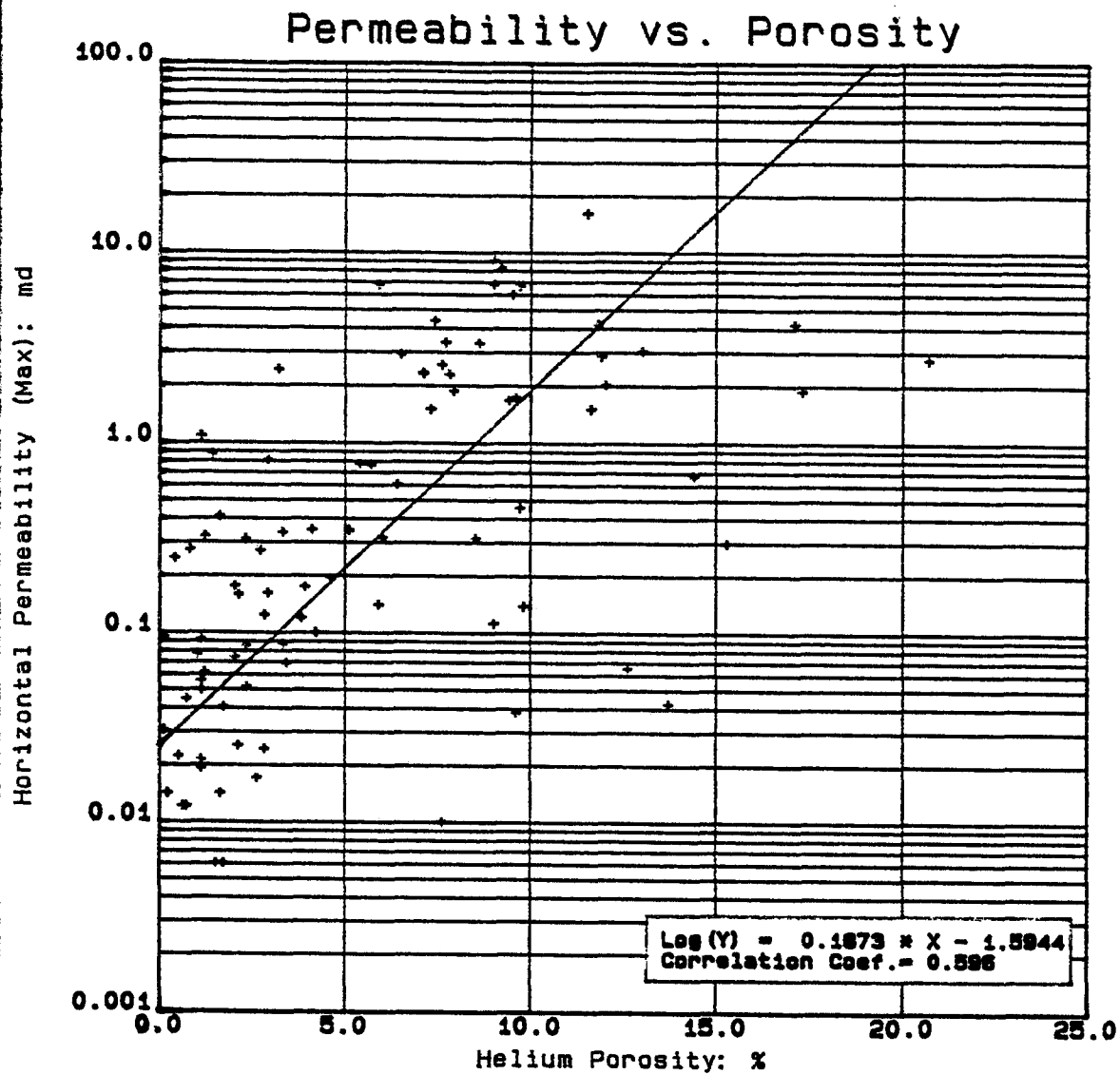
Company : Petral Exploration, LLC  
Well : #1 Knockdhu Unit

Field : Wildcat  
Formation : Ismay/Desert Creek

File No.: 57122-8003  
Date : 5-Apr-1996

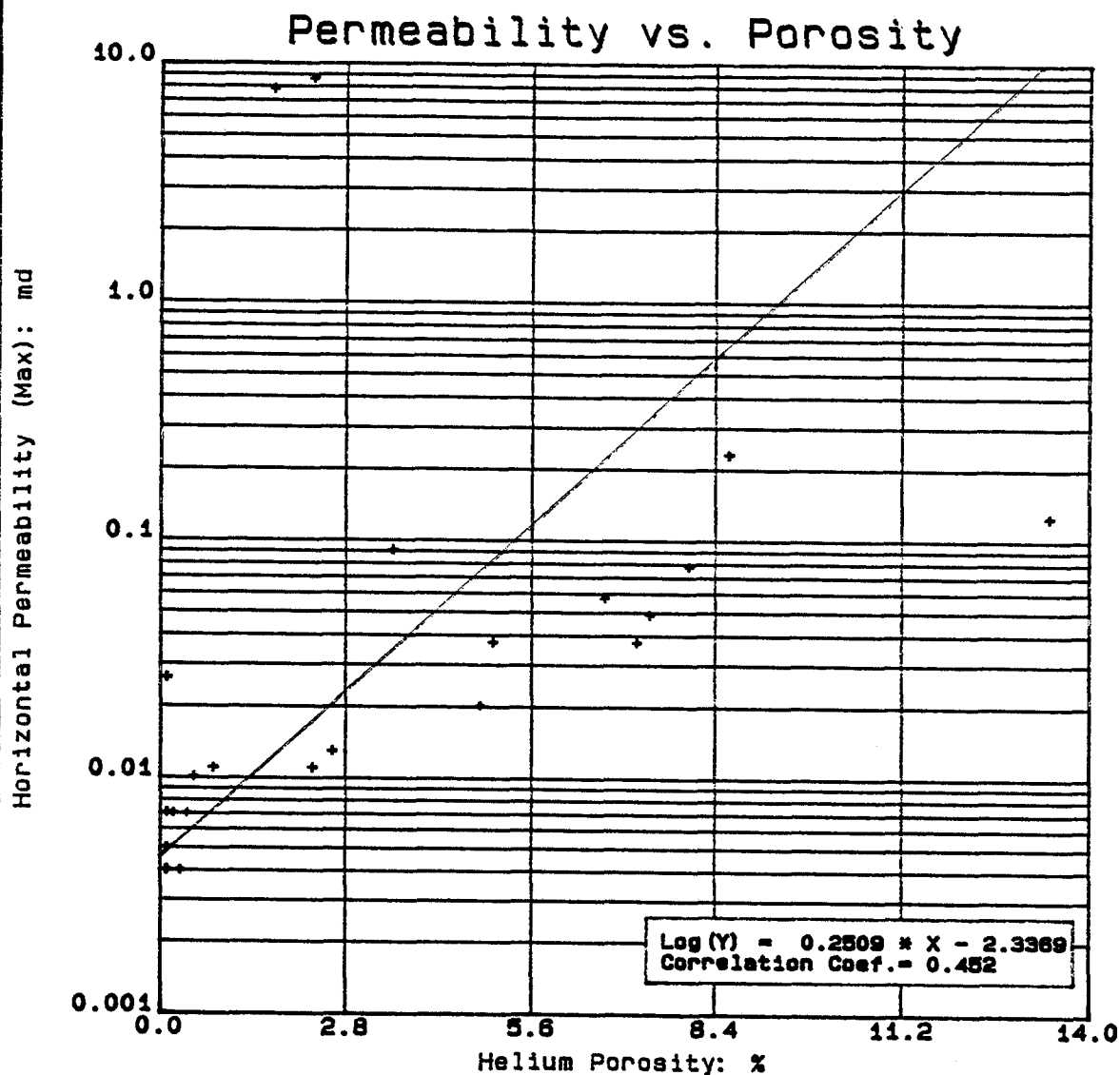
C M S - 2 0 0 T E S T D A T A

SAMPLE NUMBER	DEPTH ft	NOB PRESSURE psi	PORE VOLUME cc	POROSITY %	K <sub>∞</sub> md	K <sub>air</sub> (est) md	b (He) psi	BETA ft(-1)	ALPHA microns
90	5977.0	800.0	2.55	10.4	0.240	0.271	7.89	3.4947E11	2.66143E2
94	5981.0	800.0	2.45	10.1	0.123	0.167	23.50	1.5764E12	6.10789E2



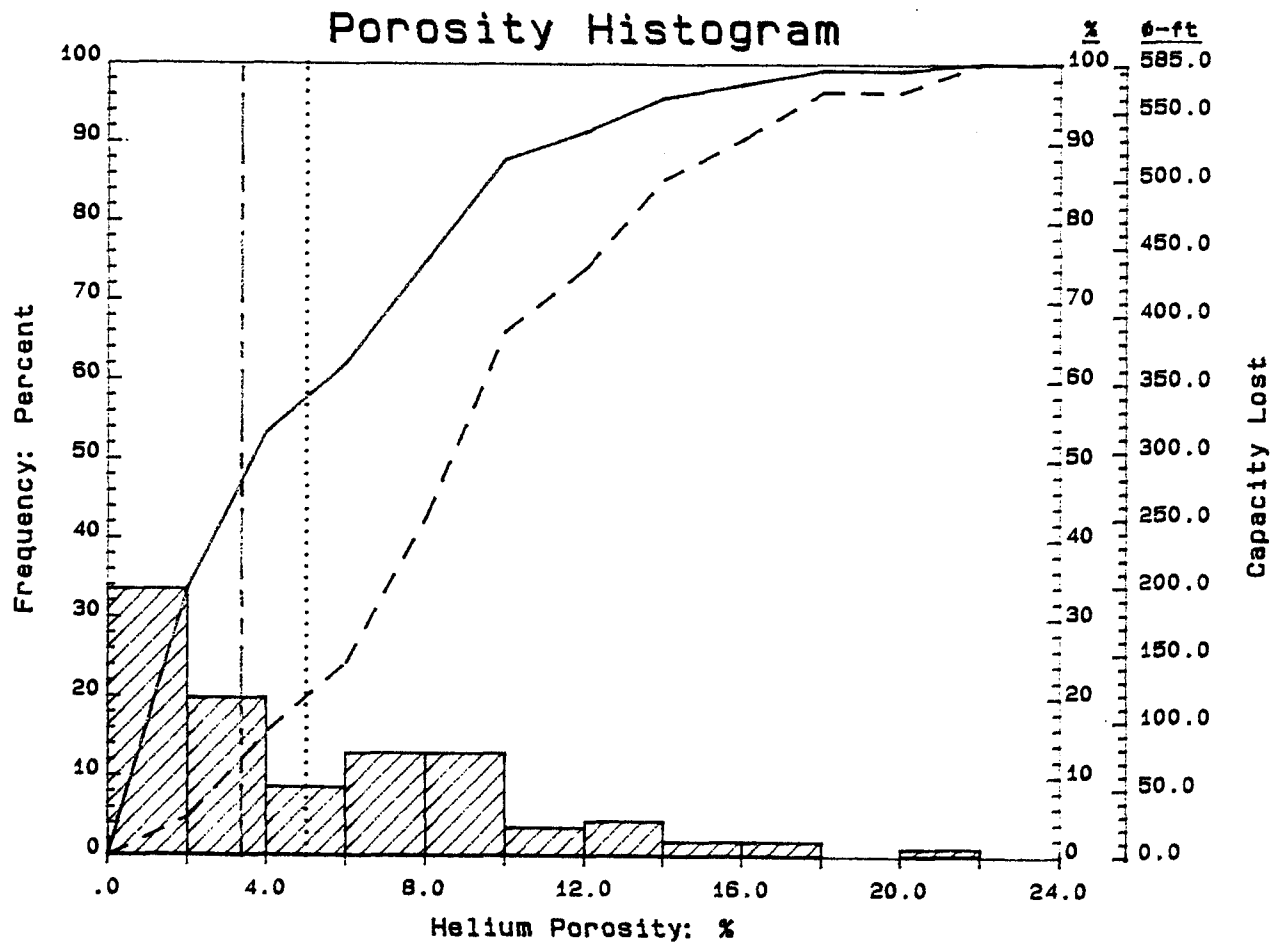
<p><b>Petral Exploration, LLC</b> #1 Knockdhu Unit Wildcat San Juan Co, Utah Upper Ismay (5700.0-5823.0 feet) Cores 1,2 Core Laboratories</p>	<p style="text-align: center;">- LEGEND - Ismay</p>
---	---

5-Apr-1996



<p><b>Petral Exploration, LLC</b> #1 Knockdhu Unit Wildcat San Juan Co, Utah Desert Creek (5977.0-6016.5 feet) Core 3 Core Laboratories</p>	<p style="text-align: center;">- LEGEND - Desert Creek</p>
---	--

5-Apr-1998



**Petral Exploration, LLC**  
 #1 Knockdhu Unit  
 Wildcat  
 San Juan Co, Utah  
 Ismay/Desert Crk (5700.0-6018.0 feet)  
 Cores 1-3  
 Core Laboratories

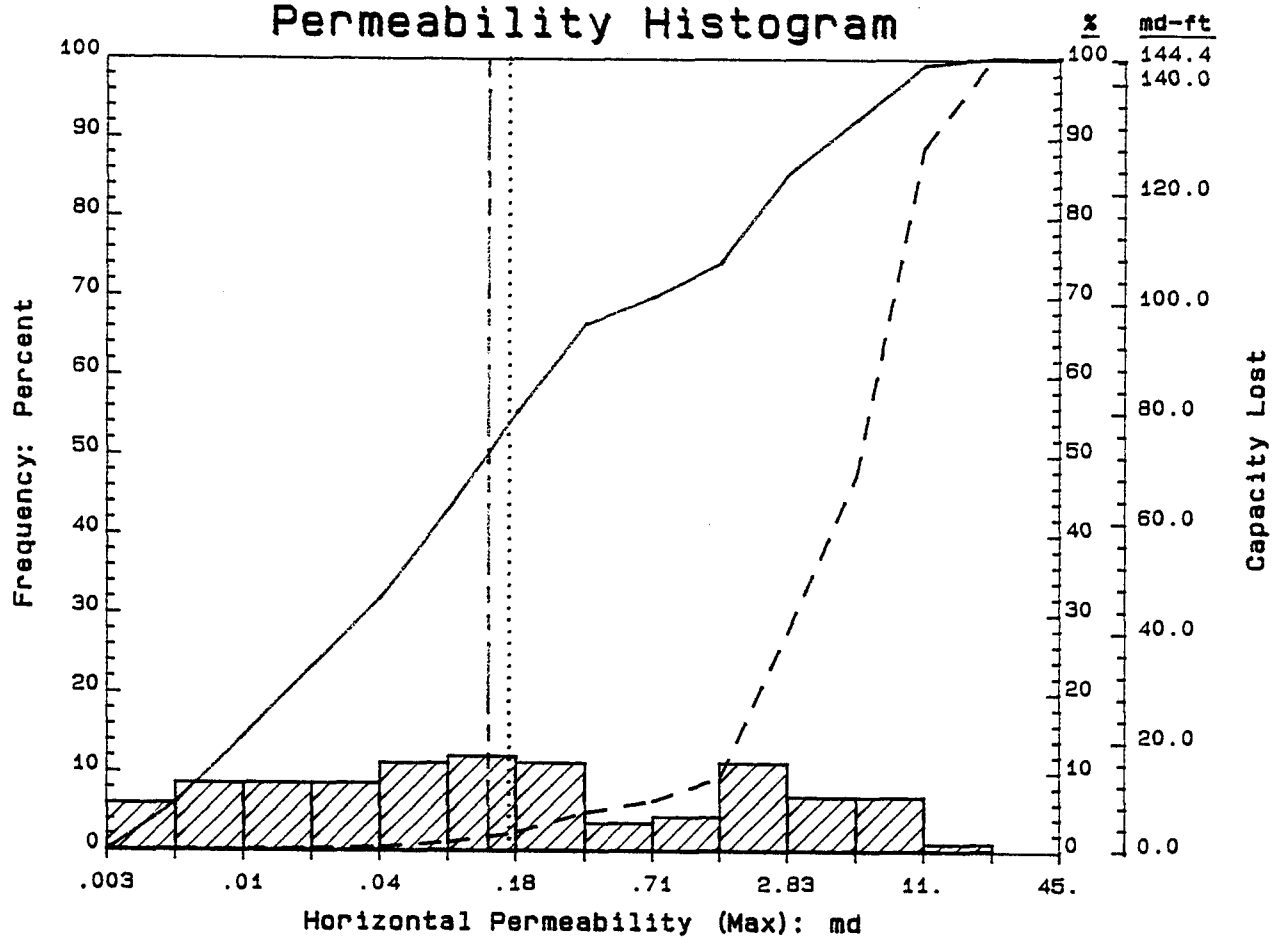
5-Apr-1996

- LEGEND -

- Median Value (3.3)
- ..... Arith. Average (5.0)
- Cumulative Frequency
- - - Cumulative Capacity Lost

116 Samples

# Permeability Histogram



## Petral Exploration, LLC

#1 Knockdhu Unit

Wildcat

San Juan Co., Utah

Ismay/Desert C (5700-6018 feet)

Cores 1-3

Core Laboratories

5-Apr-1996

## - LEGEND -

- Median Value (0.132)
- ..... Geom. Average (0.166)
- Cumulative Frequency
- - - Cumulative Capacity Lost

116 Samples

# Correlation Coregraph

Petral Exploration, LLC

#1 Knockdhu Unit

Wildcat

San Juan Co, Utah

Upper Ismay (5700.0-5823.0 feet)

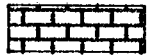
Cores 1, 2

Core Laboratories

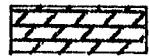
5-Apr-1996

Vertical Scale  
5.00 in = 100.0 ft

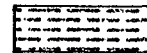
- Lithology Legend -



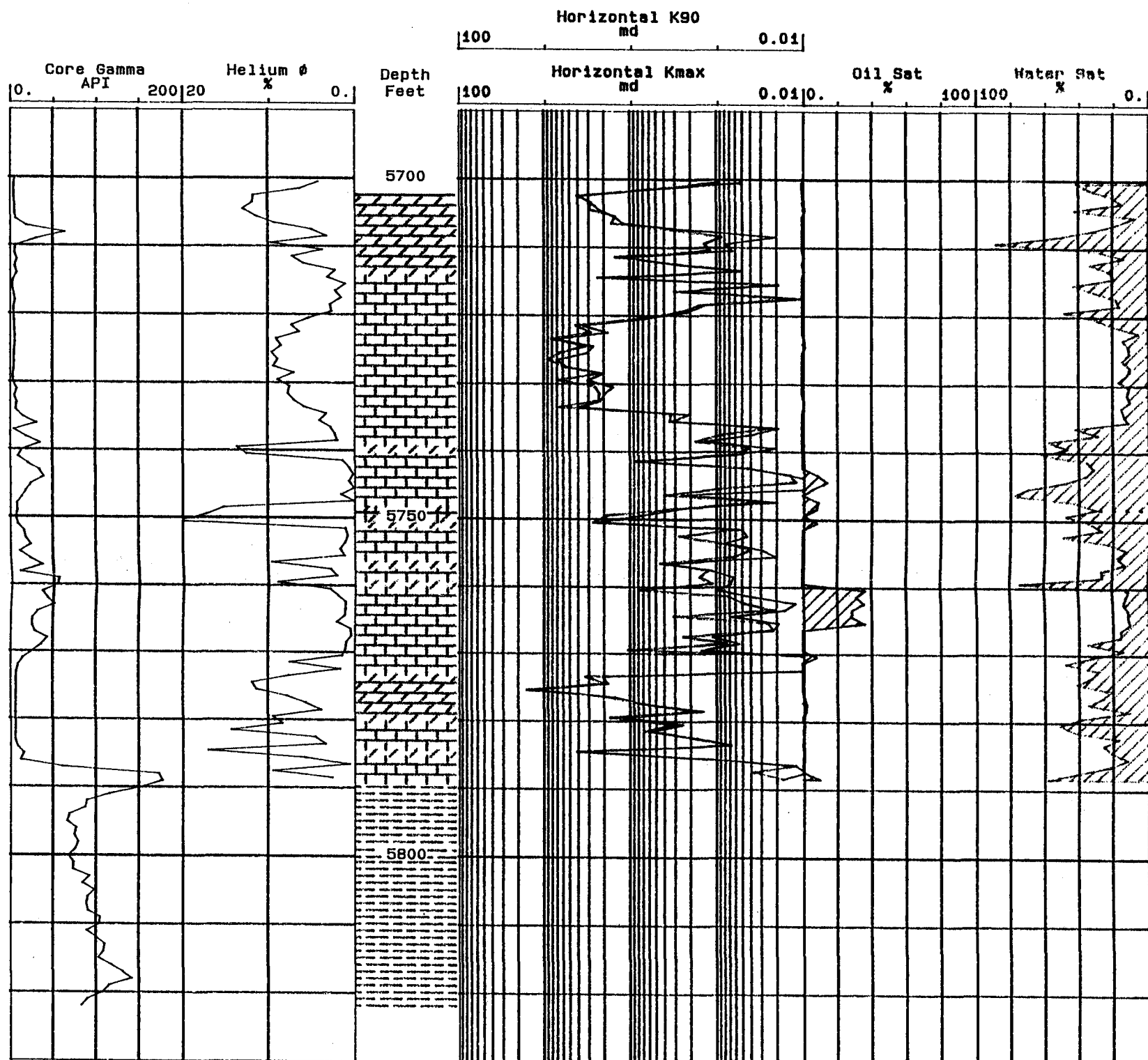
Limestone



Dolomite



Shale





# Correlation Coregraph

**Petral Exploration, LLC**

**#1 Knockdhu Unit**

**Wildcat**

**San Juan Co, Utah**

**Desert Creek (5977.0-6016.5 feet)**

**Core 3**

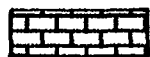
**Core Laboratories**

**5-Apr-1998**

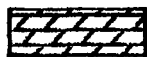
**Vertical Scale**

**5.00 in = 100.0 ft**

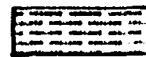
## - Lithology Legend -



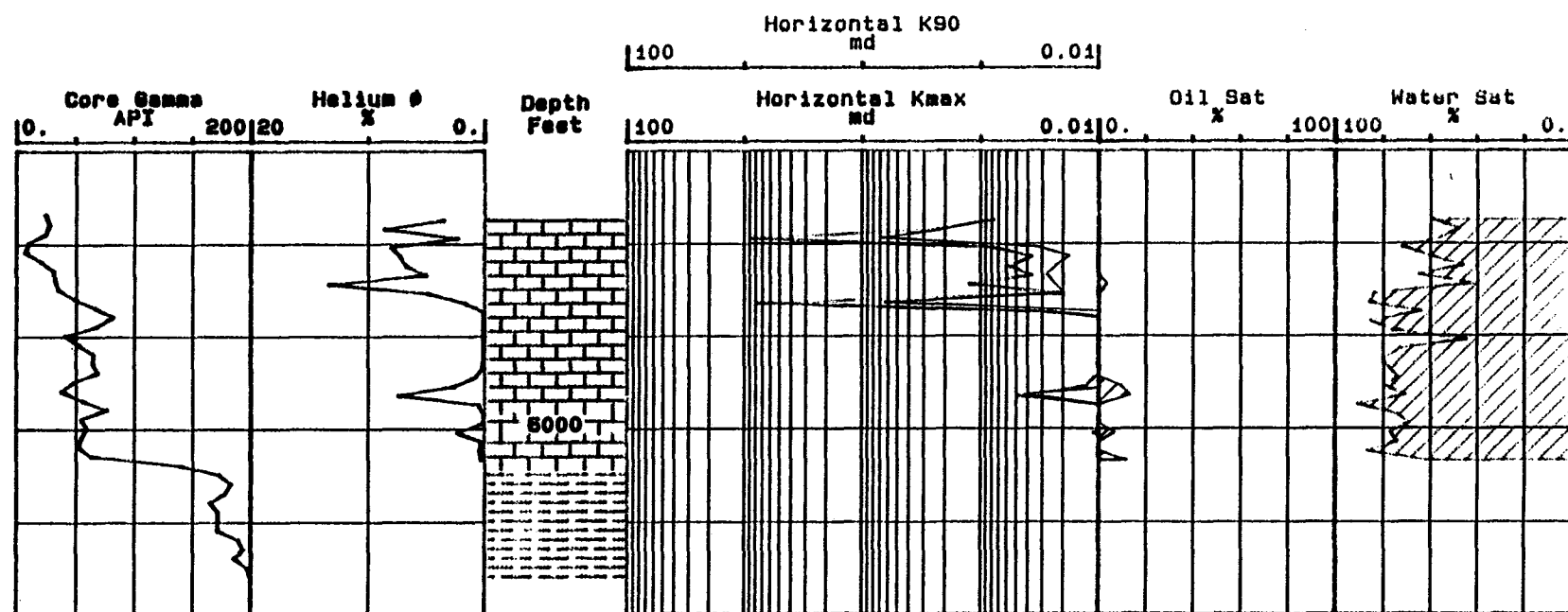
**Limestone**



**Dolomite**



**Shale**



**CONFIDENTIAL****facsimile**  
TRANSMITTAL

---

**to:** State of Utah, Division of Oil, Gas & Mining  
**fax #:** (801) 359-3940  
**re:** Petral Exploration, LLC, #1 Horseshoe Unit  
SW NW NE Sec. 33-T37S-R25E, San Juan Co., UT  
API 43-037-31773, Lease No. UTU 18452A  
**date:** May 17, 1996  
**pages:** 1, including cover sheet.

Attached is the weekly progress report on the above referenced well.

If you have any questions, please give us a call.

Sharon

From the desk of...

Sharon Orr

McIlnay & Associates, Inc.  
2305 Oxford Lane  
Casper, WY 82601

307 265-1351  
Fax: 307 473-1218

Daily Completion Reports  
Petal Exploration, LLC

Knockdhu #1, UTU 18452A

Page 6

**5-11 & 12-96**

Ran 4 Pt. back pressure flow test. See Attached Data Sheet for details. At 8 AM 5/12/96 running in hole with pressure bombs for 96 Hr. pressure build-up survey. Flowed well @ ~300 MCFD rate while running bombs. Hung bombs off @ 5530' KB (SN). Shut well in @ 8:30 AM 5/12/96.

Daily Cost: \$ 3,657

Cum. Cost: \$ 671,654

**5-13-96 - AM**

Well shut in for BIIP survey. Will finish construction and hook-up of producing facility today (5/13/96).

**Operations**

Dug emergency water and blow down pit. Put dike around same and installed lines from production unit to pits. Back filled flare pit and flow line ditch. Jeff Brown with BLM on location with wildlife biologist to check pipeline Right-of-Way and prepare raptor report.

Daily &amp; Updated Costs: \$ 3,517

Cum. Cost: \$ 675,171

**5-14-96**

SITP - 1640 psig SICP 1760 psig

Built and compacted dikes around storage tanks and production unit. Fencing emergency pit. Painted all exposed piping. Will pull pressure bombs 5/16/96 AM.

Daily &amp; Updated Costs: \$ 1,917

Cum. Cost: \$ 677,088

**5-15-96**

SITP - 1640 psig SICP 1750 psig

Finished fencing emergency pit. Began netting pit. Insulated wellhead and exposed flowline. Pulling pressure bombs this AM (5/16/96).

Daily &amp; Updated Costs: \$ 3,997

Cum. Cost: \$ 681,085

**Final report**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Form approved,  
Budget Bureau No. 1004-0137  
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> DRY <input type="checkbox"/> Other <input type="checkbox"/>		2. NAME OF OPERATOR Petral Exploration, LLC		3. ADDRESS OF OPERATOR c/o McIlnay & Associates, Inc. 2305 Oxford Lane, Casper, WY 82604		5. LEASE DESIGNATION AND SERIAL NO. UTU18452A	
b. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. REFR. <input type="checkbox"/>		4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface SW NW NE Sec. 33-37S-25E, 1104' FNL & 2473' FEL At top prod. interval reported below SE NE NW Sec. 33-37S-25E, 1119' FNL & 2746' FEL At total depth SE NE NW, Sec. 33-37S-25E, 1114' FNL & 2801' FEL		14. PERMIT NO. 43-037-31773		DATE ISSUED 3-5-96	
15. DATE SPUDDED 3-16-96		16. DATE T.D. REACHED 4-7-96		17. DATE COMPL. (Ready to prod.) 5-16-96		18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 5575.4GL 5587.4 KB	
20. TOTAL DEPTH, MD & TVD 6047' DRLR		21. PLUG, BACK T.D., MD & TVD 5954'		22. IF MULTIPLE COMPL., HOW MANY*		23. INTERVALS DRILLED BY 0 - 6047'	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* Upper Ismay Mound - 5740 - 5684'						25. WAS DIRECTIONAL SURVEY MADE Yes	
26. TYPE ELECTRIC AND OTHER LOGS RUN CNL-Density, BHC-Sonic, GR-Dual Induction, Fullbore Micro Imager,						27. WAS WELL CORED Yes	
28. CASING RECORD (Report all strings set in well)							
CASINO SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE	
16"		0.25" Thick		75'		20"	
9 5/8"		36#		1800.94'		12 1/4"	
5 1/2"		15.5#		6051.43		8 3/4"	
CEMENTING RECORD		AMOUNT PULLED					
6 1/4 Yds. Ready Mix		----					
839 sks Cement		----					
260 sks Cement		----					
29. LINER RECORD							
SIZE		TOP (MD)		BOTTOM (MD)		SACKS CEMENT*	
2 3/8"		5573.60' KB					
30. TUBING RECORD							
SIZE		DEPTH SET (MD)		PACKER SET (MD)			
2 3/8"		5573.60' KB					
31. PERFORATION RECORD (Interval, size and number)							
5740 - 36'		4 Holes/ft. - 23 Grm.					
5730 - 26		Charges - 160 holes					
5722 - 08'							
5702 - 5684'							
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.							
DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED					
5740 - 5684		60 Bbls. acid					
		15% MSD-100 Acid +					
		2% A261					
33.* PRODUCTION							
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing				WELL STATUS (Producing or shut-in) SI waiting on gas line connection	
DATE OF TEST		HOURS TESTED		CHOKE SIZE		PROD'N. FOR TEST PERIOD	
5/9-10/96		30		23/64		30	
FLOW. TUBING PRESS.		CASING PRESSURE		CALCULATED 24-HOUR RATE		OIL—BBL. GAS—MCF. WATER—BBL. GAS-OIL RATIO	
465 psig		600 psig		24		30 2380 0 27.6	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Sold						TEST WITNESSED BY Larry Miller	
35. LIST OF ATTACHMENTS Directional Report							
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records McIlnay & Associates, Inc.							
SIGNED		TITLE Consulting Engineers				DATE 6-4-96	

\*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
			Core #1 - 5700-61 Upper Ismay Mound Recovered 60.5'
			Core #2 - 5761-5823 - Upper-Lower Ismay Md. Recovered 62'
			Core #3 - 5977-6018' Lower Desert Creek Md Recovered 38.5'
			DST #1 - 4866 - 4908 - Honaker Trail
			DST #2 - 5974.5 - 6018 - Lower Desert Creek
			DST #3 - 5670 - 5750' - Upper Ismay Mound
			See Core and DST data submitted under separate cover.

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Honaker Trail	4551	4548
LaSal	5320	5298
Upper Ismay	5632	5604
Upper Ismay Anhydrite	5663	5634
Upper Ismay Mound	5683	5653
Hovenweep	5778	5746
Lower Ismay	5812	5780
Lower Ismay Anhydrite	5835	5803
Lower Ismay Carbonate	5865	5832
Gothic	5874	5842
Upper Desert Creek	5880	5848
Upper Desert Creek Anhy.	5883	5852
Lower Desert Creek	5938	5905
Lower Desert Creek Md.	5961	5936
Lower Desert Crk. Sand	5982	5945
Chimney Rock	5990	5957
Akah	6011	5976
Drillers TD	6047	
Loggers TD	6037	

**McILNAY**

# McILNAY & ASSOCIATES, INC.

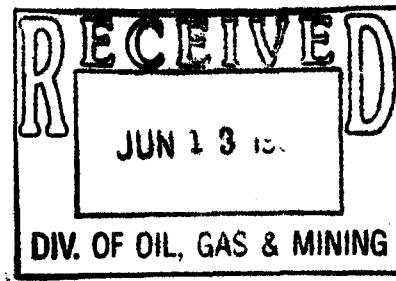
2305 OXFORD LANE • CASPER, WY 82604 • (307) 265-4351 • FAX (307) 473-1218

PETROLEUM CONSULTING ENGINEERS & PROPERTY MANAGEMENT

REGISTERED PROFESSIONAL ENGINEERS

June 4, 1996

Mr. Frank Matthews  
Utah Board of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203



Re: Petral Exploration, LLC, Knockdhu #1, SE NE NW 33-37S-25E, San Juan Co., UT

Gentlemen:

Attached is a Sundry Notice, Facility & Site Security Diagram and Completion Report for the above referenced well.

It is requested that all information on this well be kept Confidential for the time period allowed.

Please contact us at the letterhead address or telephone number if you have questions or comments.

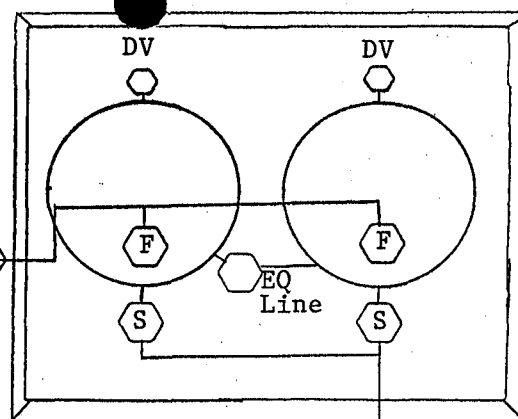
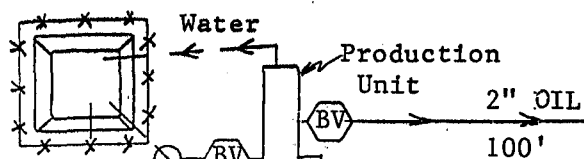
Yours truly,

McILNAY & ASSOCIATES, INC.

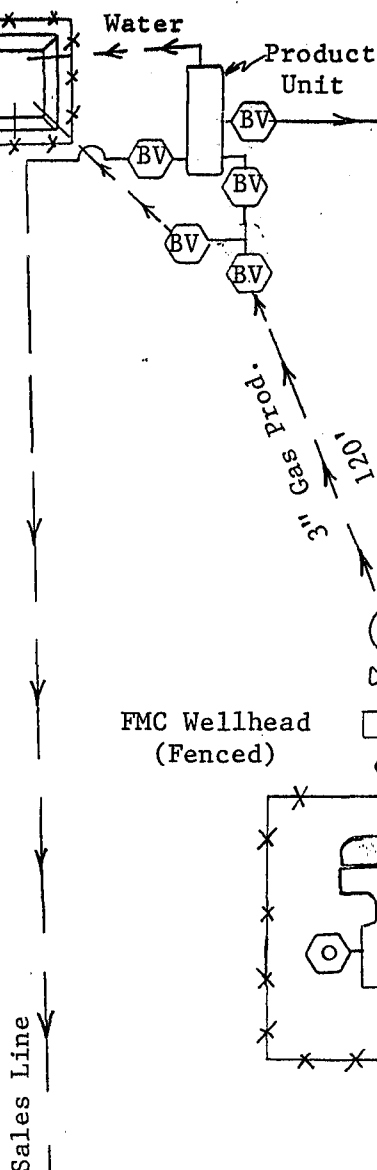
Kenneth P. Kidneigh  
Engineer

cc: Petral Exploration, LLC  
Rose Exploration Associates

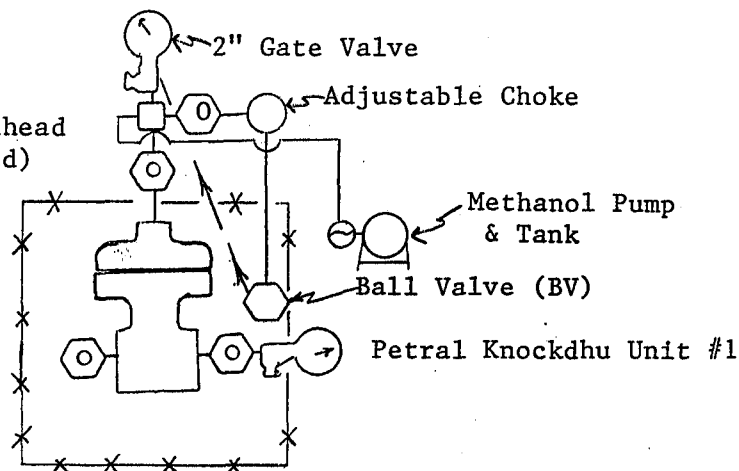
Blooie Pit  
(Diked, fenced & netted)



2-300 Bbl. Production  
Tanks (Diked, & drip  
pot on sales line)



FMC Wellhead  
(Fenced)



Production			
Valves	Phase	Sales	
F Oil In	Open	Closed	
S Sales	Closed	Open	
DV Drain	Closed	Closed	
EQ Equalizer	Open	Closed	

Meter to  
Questar Pipeline

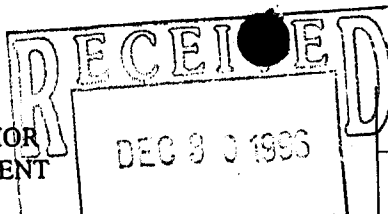
Meter to Western Gas

Located at Patterson "A" Battery  
S2/ SW/4 Sec. 33-T37S-R24#  
San Juan Co., Utah

#### FACILITY DIAGRAM

Petral Exploration, LLC  
#1 Knockdhu Unit  
SW NW NE Sec. 33-T37S-R25E  
San Juan Co., Utah  
Lease #UTU18452A  
Unit #UTU75040X

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT



FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.

UTU-18452A

6. If Indian, Allottee or Tribe Name

INA

7. If Unit or CA, Agreement Designation

Knockdhu Unit 75040X

8. Well Name and No.

#1

9. API Well No.

43-037-31773

10. Field and Pool, or Exploratory Area

Unnamed

11. County or Parish, State

San Juan Co., UT

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Petral Exploration, LLC

3. Address and Telephone No. c/o McIlnay & Associates, Inc. 2305 Oxford Lane,  
Casper, WY 82640 (307) 265-4351

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

NW NE SEC. 33-T37S-R25E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other Incident Report
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

On December 19, 1996 at about 10:00 AM, a natural gas pipeline fire was discovered approximately 200 yards north of the Knockdhu Unit #2 well. Mr. Gary Torres with the Moab District BLM office was notified by cellular phone within 3 minutes of discovering the fire. The gas fire burned for approximately 10 min., burning two cedar trees, one pinon pine tree and 6 MSCF of natural gas. The Knockdhu #1 was shut in within 10 minutes and the fire controlled with fire extinguishers by the crew of Big A Well Service, Rig #31. The cause of the gas leak and subsequent fire is of yet undetermined. By 3 PM on December 19, 1996 the fire was completely extinguished and the Poly pipeline was repaired and ready for gas transmission. The well was restored to production and sales by 10 AM December 20, 1996.

CONFIDENTIAL

14. I hereby certify that the foregoing is true and correct

Signed

Title

McIlnay & Associates, Inc.

Consulting Engineers

Date 12-23-96

(This space for Federal or State office use)

Approved by

Conditions of approval, if any:

Title

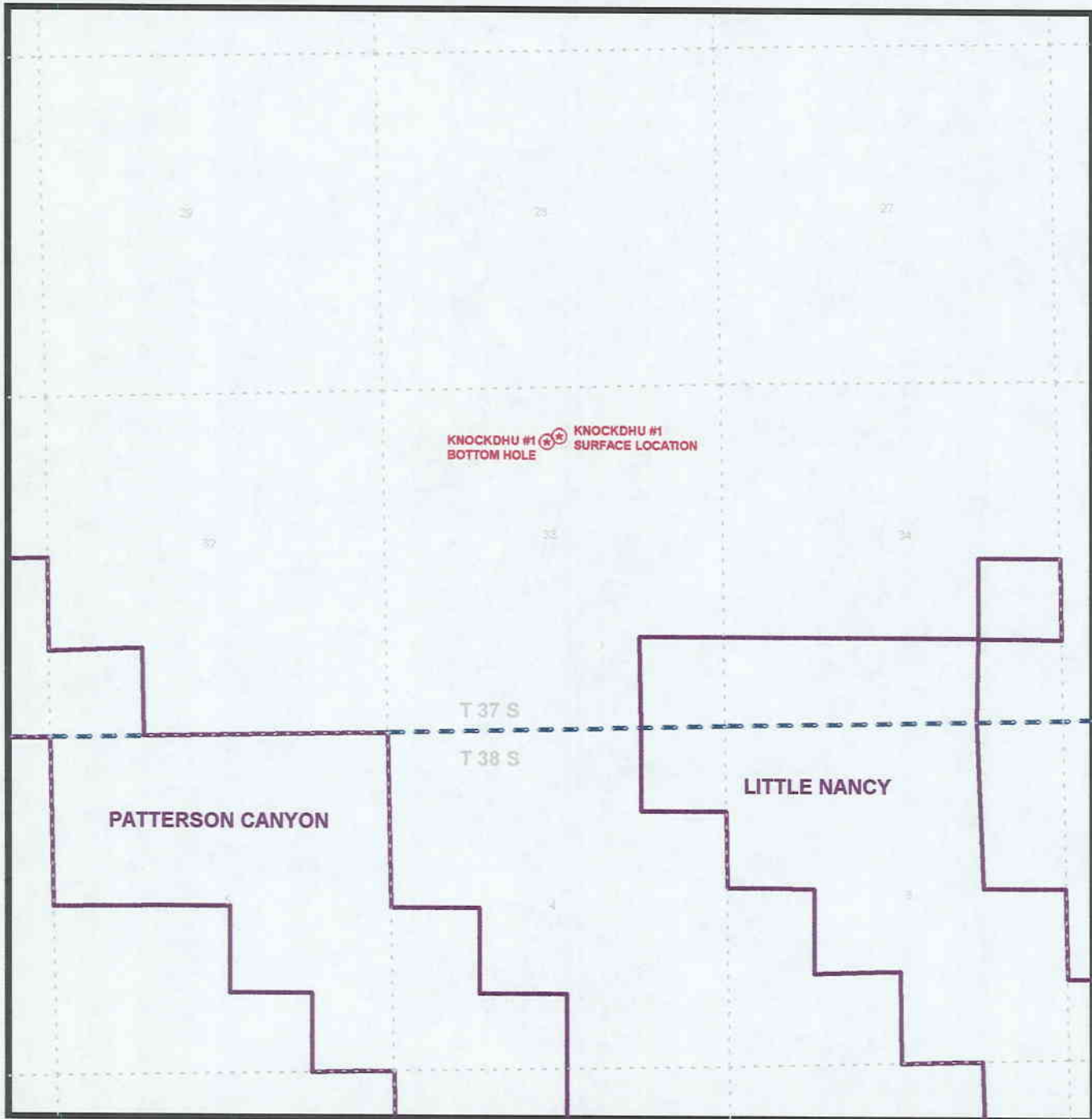
Date

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*See Instruction on Reverse Side



**PETRAL EXPLORATION  
KNOCKDHU #1  
SEC. 33, T37S, R26E  
SAN JUAN COUNTY UAC R649-2-3**



PREPARED:  
DATE: 17-JUN-96

PETRAL EXPLORATION, LLC (PE)

#1 KNOCKDHU UNIT

NW/NE SEC. 33, T37S, R25E

SAN JUAN CO., UTAH

43 03731773

43 037 31773  
PETRAL EXPLORATION  
# 1 Knockdhu Unit  
NW NE Section 33 T37S R25E  
San Juan County, Utah

Corrected measured and true vertical depths for cores, drill stem test, perforations and mud log. This is a directionally drilled hole, and Schlumberger made an error in determining total depth. A depth corrected set of logs was issued. Copies showing Driller's TD 6047 and Logger's TD 6036 should be destroyed.

Core Depth Corrections

	Uncorrected MD	Corrected MD	Corrected TVD
Core # 1	N/A	5700-5761	5671-5730
Core # 2	N/A	5761-5823	5730-5743
Core # 3	N/A	5977-6018	5946-5987

Drill Stem Test Depth Corrections

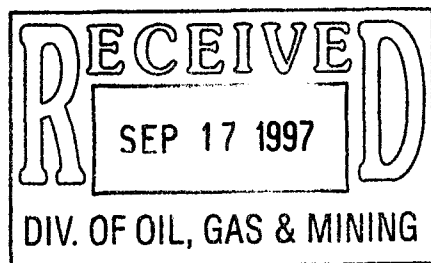
	Uncorrected MD	Corrected MD	Corrected TVD
DST # 1	N/A	4866-4908	4859-4901
DST # 2	N/A	5974-6018	5730-5987
DST # 3	5670-5750	5681-5761	5650-5730

DST # 3 was a straddle test run after logs. The packer seats were picked from the uncorrected MD logs. The depth must be corrected downward for the corrected MD log and then correct upward for corrected TVD log. The same applies to the perforated intervals which follow.

Perforation Depth Corrections

	Uncorrected MD	Corrected MD	Corrected TVD
Set # 1	5684-5702	5695-5713	5664-5682
Set # 2	5708-5722	5719-5733	5688-5702
Set # 3	5726-5730	5737-5741	5706-5710
Set # 4	5736-5740	5747-5751	5716-5720

The mud log must be shifted 11 feet down to match the corrected measured depth logs.



## GEOLOGICAL REPORT

ON

#1 KNOCKDHU UNIT  
NW/NE SEC. 33, T37S, R25E

FOR

PETRAL EXPLORATION, LLC (PE)

### TABLE OF CONTENTS

Well Data Summary.....	1
Formation Tops.....	3
Deveation Surveys.....	4
Bit Record.....	12
Drill Stem Test #1.....	14
Drill Stem Test #2.....	16
Drill Stem Test #3.....	18
Daily Drilling Summary.....	20
Logging Report.....	21
Core Descriptions.....	22
X-Ray Diffraction.....	26
QFT Analysis.....	27
Core Analysis.....	35
Formation Evaluation.....	42

Lithologic Descriptions.....	44
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March/April, 1996 Roger D. Charbonneau, B.Sc.  
Wellsite Geologist

DECOLLEMENT CONSULTING INC.

## WELL DATA SUMMARY

WELL NAME	#1 Knockdhu Unit
OPERATOR	Petral Exploration, LLC (PE)
SURFACE LOCATION	NW/NE Sec. 33, T37S, R25E San Juan Co., UT
BOTTOM HOLE LOCATION	Closure; Distance 323.78', Direction S88.21W Azimuth 268.21 deg.
WELL CLASSIFICATION	EXPLORATION
API #	43 037 31 773 0000
DRILLING CONTRACTOR	Four Corners #7
WELL LICENCE NUMBER	95K100
AFE NUMBER	#1 Knockdhu Unit
ELEVATIONS - GROUND LEVEL	5575
- KELLY BUSHING	5587
SPUD DATE	March 16, 1996
T.D. DATE	April 8, 1996
RIG RELEASE DATE	April 13, 1996
SURFACE CASING	1800' of 9 5/8"
PRODUCTION CASING	6051' of 5 1/2"
HOLE SIZE	8 3/4
SAMPLE INTERVAL	3800-6047
GAS DETECTION INTERVAL	3800-6047

## WELL DATA SUMMARY

### OPEN HOLE LOGS

---

BHCS-GR-Cal

---

CNLD-GR-Cal; Array Induction-GR-S P-Cal

---

Fullbore Micro Imager-GR-Cal

---

### DRILL STEM TESTS

---

#1 4866-4908 Honaker Trail Fm.

---

#2 5974.5-6018 Lower Desert Creek Mound

---

#3 5670-5750 Upper Ismay Fm.

---

### CORES

---

#1 5700-5760 Ismay Fm.

---

#2 5760-5823 Ismay Fm.

---

#3 5977-6018 Lower Desert Creek Mound

---

### MUD TYPE

---

LSND Gel-Chem

---

### WELL STATUS

---

Cased Gas Well

---

# FORMATION TOPS

Kelly Bushing (ft) 5587

FORMATION	Prognosis	SAMPLE TOP		E LOG TOP		
	TVD	MD	TVD	MD	TVD	SS TVD
Honaker Trail	4562	4551	4548	4551.0	4548	1039
La Sal	5307	5319	5298	5320.0	5298	289
Upper Ismay	5607	5642	5610	5642.0	5615	-28
Upper Ismay Anhy	5637	5674	5642	5674.0	5644	-58
U. Ismay Mound	5647	5693	5659	5694.0	5664	-77
Hovenweep	5747	5789	5757	5789.0	5757	-170
Lower Ismay	5787	5818	5786	5823.0	5791	-204
L. Ismay Anhy	5790	5844	5812	5846.0	5814	-227
L. Ismay Carbonate	5827	5872	5840	5876.0	5843	-256
Gothic	5832	5880	5848	5885.0	5853	-266
Upper Desert Creek	5837	5892	5860	5891.0	5859	-272
U. D. C. Anhy	5847	5914	5868	5894.0	5863	-276
Lower Desert Creek	5877	5940	5908	5949.0	5916	-329
L. D. C. Mound	5887	5973	5941	5972.0	5947	-360
L. D. C. S-Mound	5947	5992	5960	5993.0	5956	-369
Chimney Rock	5972	6004.5	5972	6001.0	5968	-371
Akah	5987	6024	5990	6022.0	5987	-400
Drillers TD	6047					
Loggers TD	6037					



## DEVIATION SURVEYS

<u>DEPTH</u>	<u>SURVEY</u>	<u>DIRECTION</u>
(ft)	(degrees)	(azimuth)
293	1/4	S67W
349	3/4	S67W
527	0	0
703	1/4	N3W
889	1/4	N58W
1061	1 1/4	N28W
1257	1 3/4	N31W
1342	1 1/2	N51W
1420	1 3/4	N42W
1513	1 1/4	N53W
1605	1 1/4	N53W
1761	1 1/4	N53W
1894	1	N40W
2050	1/2	N27W
2204	1	N29E
2362	1 1/4	N35E
2518	1 1/4	N20W
2672	1	N2E
2829	0	N0E
3017	1	S50E
3174	1 1/4	S78E
3326	1 1/2	S20E
3481	1 1/2	S53E
3667	1/2	S63E
3746	5/8	N49E
3804	7/8	N49E

PETRAL EXPLORATION, LLC  
 KNOCKDHU FEDERAL #1  
 SECTION 33 - T37S - R25E  
 SAN JUAN COUNTY, UTAH

## MULTISHOT AND MWD SURVEY INFORMATION

Vert. Sect. Dir. = S 87.7000 W Calculations using the Minimum curvature Method

Meas. Depth	Hole Ang.	T.V.D.	V. S. Dist.	Hole Dir.	Total Lat.	Coordinates Dep.	C L O S U R E S Distance	Direction	D. L. Sev.
3746	.65	3745.90	.08	N 49.57 E	25.50 N	1.10 W	25.52 N	2.4701 W	.00
3773	.65	3772.90	-.19	N 64.83 E	25.66 N	.84 W	25.68 N	1.8854 W	.64
3804	.80	3803.90	-.52	N 49.80 E	25.88 N	.52 W	25.88 N	1.1520 W	.78
3835	.50	3834.89	-.78	N 37.40 E	26.13 N	.27 W	26.13 N	.5985 W	1.06
3864	.80	3863.89	-.92	N 17.00 E	26.42 N	.14 W	26.42 N	.2968 W	1.29
3894	.50	3893.89	-.97	N 11.30 W	26.75 N	.10 W	26.75 N	.2170 W	1.44
3923	.60	3922.89	-.86	N 41.90 W	26.99 N	.23 W	26.99 N	.4830 W	1.05
3956	1.20	3955.88	-.55	N 36.80 W	27.39 N	.55 W	27.40 N	1.1501 W	1.83
3987	1.50	3986.88	-.06	N 50.70 W	27.91 N	1.06 W	27.93 N	2.1717 W	1.43
4020	1.30	4019.87	.63	N 86.60 W	28.20 N	1.77 W	28.26 N	3.5834 W	2.68
4049	2.00	4048.85	1.47	S 87.40 W	28.20 N	2.60 W	28.32 N	5.2679 W	2.48
4080	2.40	4079.83	2.64	N 80.60 W	28.28 N	3.78 W	28.53 N	7.6145 W	1.96
4110	2.10	4109.81	3.80	N 85.10 W	28.43 N	4.95 W	28.86 N	9.8729 W	1.16
4140	2.20	4139.79	4.92	S 88.60 W	28.46 N	6.07 W	29.10 N	12.0409 W	.85
4171	2.30	4170.76	6.13	S 79.00 W	28.33 N	7.28 W	29.25 N	14.4053 W	1.26
4201	2.90	4200.73	7.49	S 82.60 W	28.12 N	8.62 W	29.41 N	17.0443 W	2.07
4232	3.00	4231.69	9.07	S 79.40 W	27.87 N	10.20 W	29.67 N	20.0949 W	.62
4262	2.90	4261.65	10.57	S 71.60 W	27.48 N	11.69 W	29.87 N	23.0368 W	1.38
4292	3.50	4291.60	12.17	S 68.90 W	26.92 N	13.26 W	30.00 N	26.2305 W	2.06
4323	4.10	4322.54	14.08	S 63.90 W	26.09 N	15.14 W	30.16 N	30.1290 W	2.21
4355	4.30	4354.45	16.25	S 67.20 W	25.12 N	17.27 W	30.48 N	34.5144 W	.98
4386	4.30	4385.36	18.43	S 68.10 W	24.23 N	19.42 W	31.06 N	38.7097 W	.22
4417	4.40	4416.27	20.69	S 75.30 W	23.50 N	21.65 W	31.95 N	42.6555 W	1.79
4449	5.50	4448.15	23.39	S 75.80 W	22.81 N	24.33 W	33.35 N	46.8387 W	3.44
4480	5.90	4479.00	26.40	S 76.00 W	22.06 N	27.31 W	35.11 N	51.0688 W	1.29

PETRAL EXPLORATION, LLC  
 KNOCKDHU FEDERAL #1  
 SECTION 33 - T37S - R25E  
 SAN JUAN COUNTY, UTAH

## MULTISHOT AND MWD SURVEY INFORMATION

Vert. Sect. Dir. = S 87.7000 W Calculations using the Minimum curvature Method

Meas. Depth	Hole Ang.	T.V.D.	V. S. Dist.	Hole Dir.	Total Lat.	Coordinates Dep.	C L O S Distance	U R E S Direction	D. L. Sev.
4512	6.00	4510.83	29.63	S 72.30 W	21.16 N	30.50 W	37.12	N 55.2541 W	1.24
4544	6.80	4542.63	33.08	S 74.10 W	20.13 N	33.92 W	39.44	N 59.3119 W	2.58
4575	7.20	4573.40	36.78	S 77.30 W	19.20 N	37.58 W	42.20	N 62.9366 W	1.80
4608	7.60	4606.12	40.92	S 73.50 W	18.12 N	41.69 W	45.46	N 66.5018 W	1.91
4639	8.30	4636.82	45.10	S 75.00 W	16.96 N	45.81 W	48.85	N 69.6824 W	2.35
4669	8.70	4666.49	49.43	S 76.20 W	15.86 N	50.11 W	52.56	N 72.4355 W	1.46
4701	9.30	4698.10	54.34	S 77.00 W	14.70 N	54.98 W	56.91	N 75.0284 W	1.92
4733	10.00	4729.65	59.62	S 77.50 W	13.52 N	60.21 W	61.71	N 77.3451 W	2.20
4765	10.50	4761.14	65.22	S 77.20 W	12.27 N	65.77 W	66.90	N 79.4303 W	1.57
4796	11.10	4791.59	70.95	S 78.80 W	11.07 N	71.45 W	72.30	N 81.1956 W	2.16
4829	11.90	4823.92	77.43	S 77.50 W	9.71 N	77.88 W	78.49	N 82.8915 W	2.55
4860	12.40	4854.23	83.83	S 75.20 W	8.17 N	84.22 W	84.62	N 84.4589 W	2.24
4890	13.10	4883.49	90.32	S 77.30 W	6.60 N	90.65 W	90.89	N 85.8356 W	2.80
4921	13.80	4913.64	97.40	S 76.50 W	4.97 N	97.68 W	97.80	N 87.0901 W	2.34
4953	14.00	4944.70	104.94	S 76.60 W	3.18 N	105.15 W	105.20	N 88.2694 W	.63
4984	14.30	4974.76	112.38	S 77.00 W	1.45 N	112.53 W	112.54	N 89.2634 W	1.02
5016	14.50	5005.76	120.20	S 76.70 W	.36 S	120.28 W	120.28	S 89.8267 W	.67
5049	15.10	5037.66	128.48	S 77.30 W	2.26 S	128.49 W	128.51	S 88.9927 W	1.88
5081	15.40	5068.53	136.76	S 77.00 W	4.13 S	136.70 W	136.76	S 88.2690 W	.97
5113	15.40	5099.39	145.14	S 79.90 W	5.83 S	145.02 W	145.14	S 87.6971 W	2.41
5144	16.00	5129.23	153.46	S 80.70 W	7.24 S	153.29 W	153.46	S 87.2943 W	2.06
5175	16.80	5158.97	162.14	S 80.10 W	8.71 S	161.92 W	162.16	S 86.9227 W	2.64
5206	15.80	5188.72	170.76	S 79.70 W	10.23 S	170.49 W	170.79	S 86.5661 W	3.25
5237	15.30	5218.59	179.01	S 82.40 W	11.53 S	178.69 W	179.07	S 86.3096 W	2.84
5267	15.30	5247.52	186.91	S 84.50 W	12.43 S	186.56 W	186.97	S 86.1886 W	1.85

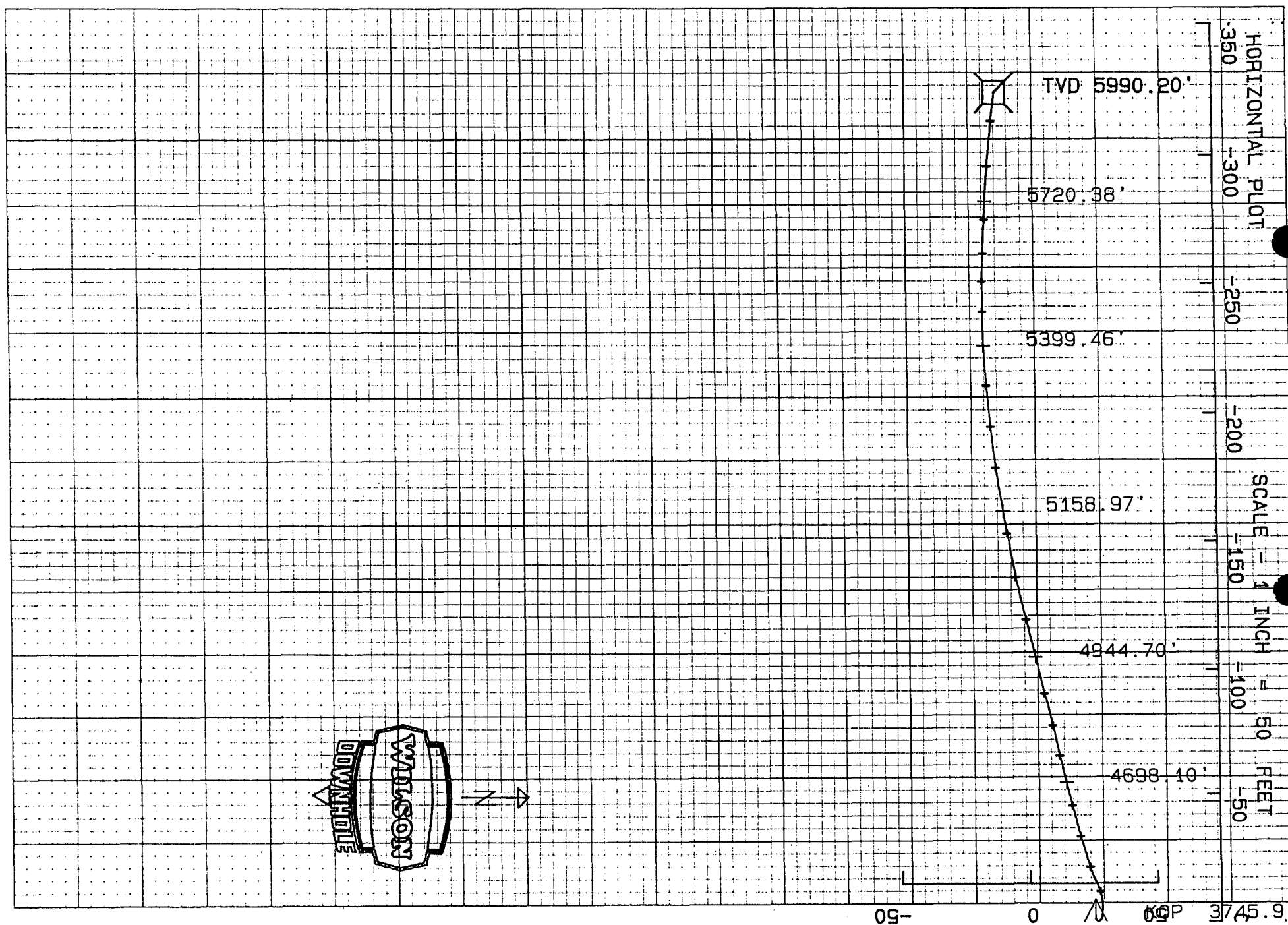
PETRAL EXPLORATION, LLC  
 KNOCKDHU FEDERAL #1  
 SECTION 33 - T37S - R25E  
 SAN JUAN COUNTY, UTAH

## MULTISHOT AND MWD SURVEY INFORMATION

Vert. Sect. Dir. = S 87.7000 W Calculations using the Minimum curvature Method

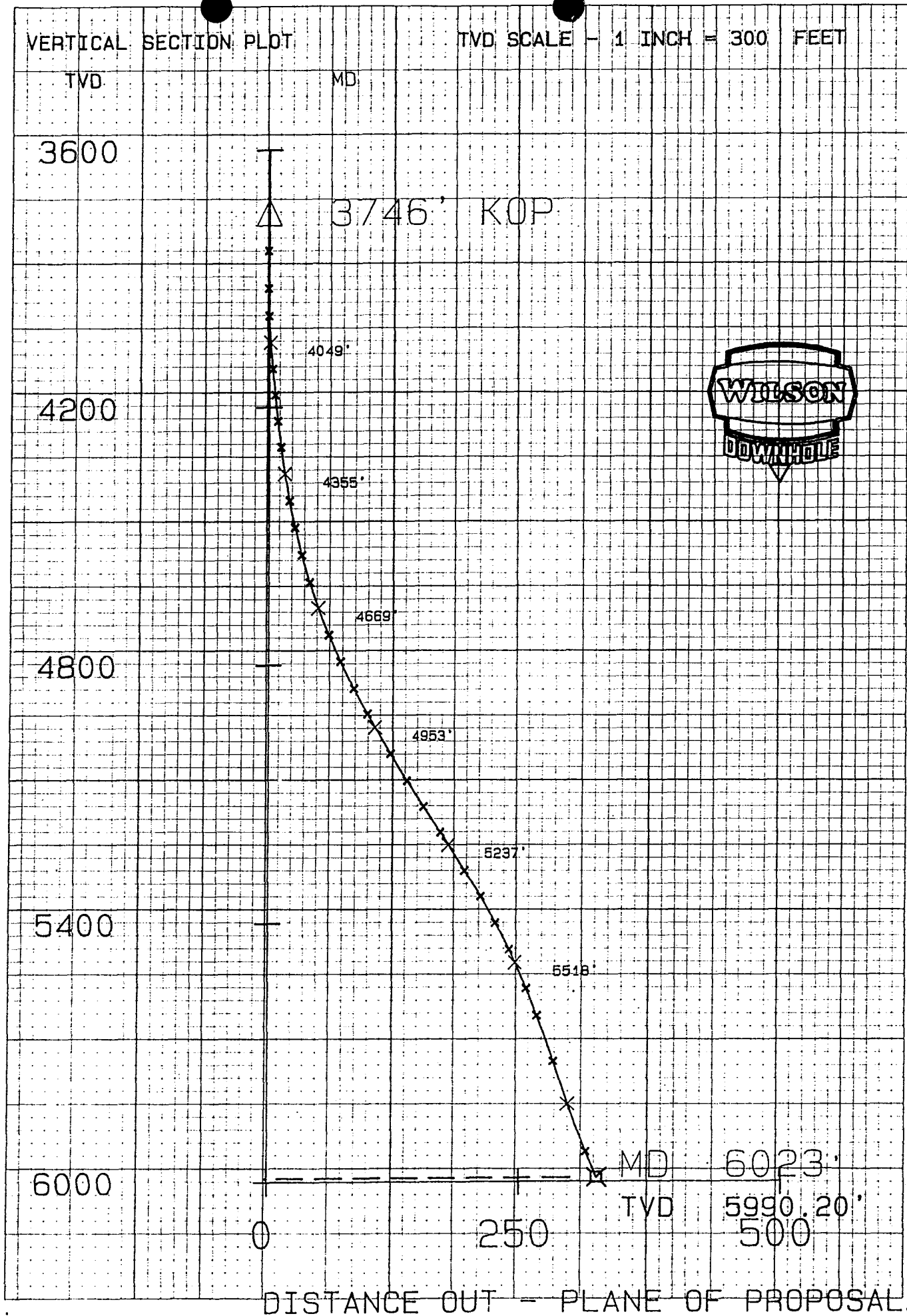
Meas. Depth	Hole Ang.	T.V.D.	V. S. Dist.	Hole Dir.	Total Lat.	Coordinates Dep.	C L O S Distance	U R E S Direction	D. L. Sev.
5299	15.20	5278.40	195.30	S 83.40 W	13.32 S	194.93 W	195.38	S 86.0923 W	.96
5330	15.20	5308.31	203.42	S 84.80 W	14.15 S	203.01 W	203.50	S 86.0127 W	1.18
5361	14.50	5338.28	211.35	S 84.90 W	14.86 S	210.92 W	211.45	S 85.9690 W	2.26
5424	13.10	5399.46	226.37	S 88.70 W	15.73 S	225.92 W	226.46	S 86.0178 W	2.65
5455	12.30	5429.70	233.18	S 88.70 W	15.88 S	232.73 W	233.27	S 86.0962 W	2.58
5487	12.00	5460.98	239.91	N 89.00 W	15.90 S	239.47 W	239.99	S 86.2010 W	1.78
5518	11.30	5491.34	246.16	N 90.00 W	15.84 S	245.72 W	246.23	S 86.3106 W	2.35
5547	10.20	5519.83	251.57	N 89.70 W	15.83 S	251.13 W	251.63	S 86.3929 W	3.80
5579	9.80	5551.35	257.11	N 86.30 W	15.64 S	256.68 W	257.16	S 86.5131 W	2.23
5611	9.60	5582.89	262.47	N 87.40 W	15.34 S	262.07 W	262.52	S 86.6492 W	.85
5643	8.60	5614.49	267.52	N 88.10 W	15.14 S	267.12 W	267.55	S 86.7553 W	3.14
5650	8.60	5621.41	268.56	N 86.70 W	15.10 S	268.17 W	268.60	S 86.7781 W	2.99
5700	8.20	5670.87	275.83	N 86.70 W	14.68 S	275.46 W	275.85	S 86.9504 W	.80
5750	7.90	5720.38	282.79	N 86.00 W	14.23 S	282.45 W	282.81	S 87.1157 W	.63
5800	7.60	5769.92	289.50	N 86.00 W	13.76 S	289.18 W	289.50	S 87.2757 W	.60
5850	7.80	5819.47	296.15	N 85.00 W	13.23 S	295.85 W	296.15	S 87.4388 W	.48
5900	8.75	5868.95	303.29	N 85.00 W	12.61 S	303.02 W	303.29	S 87.6177 W	1.90
5962	10.00	5930.12	313.26	N 82.00 W	11.45 S	313.05 W	313.26	S 87.9059 W	2.16
6000	9.90	5967.55	319.72	N 82.00 W	10.53 S	319.55 W	319.73	S 88.1122 W	.26
6023	10.00	5990.20	323.65	N 85.00 W	10.08 S	323.50 W	323.66	S 88.2147 W	2.30

Bottom Hole Closure 323.66 at S 88.2147 W



NO. XY-1001 - SP 3

GRAPHIC CONTROLS CORPORATION  
BUFFALO, NEW YORK  
PRINTED IN U.S.A.



PETRAL EXPLORATION, LLC  
KNOCKDHU FEDERAL #1  
SECTION 33 - T37S - R25E  
SAN JUAN COUNTY, UTAH  
WILSON DOWNHOLE DIRECTIONAL SERVICES  
MULTISHOT AND MWD SURVEY INFORMATION

INITIAL SURVEY POINT

MD 3746.00 FEET  
TVD 3746.90 FEET  
NORTH 25.50 FEET  
WEST 1.10 FEET



BOTTOM HOLE LOCATION

MD 6023.00 FEET  
TVD 5990.20 FEET  
SOUTH 10.08 FEET  
WEST 323.50 FEET



CLOSURE = 323.66' S 88° 12' 53" W

PETRAL EXPLORATION, LLC  
KNOCKDHU FEDERAL #1  
SECTION 33 - T37S - R25E  
SAN JUAN COUNTY, UTAH  
WILSON DOWNHOLE DIRECTIONAL SERVICES  
MULTISHOT AND MWD SURVEY INFORMATION

INITIAL SURVEY POINT

MD 3746.00 FEET  
TVD 3745.90 FEET  
NORTH 25.50 FEET  
WEST 1.10 FEET



BOTTOM HOLE LOCATION

MD 6023.00 FEET  
TVD 5990.20 FEET  
SOUTH 10.08 FEET  
WEST 323.50 FEET



CLOSURE = 323.66' S 88° 12' 53" W



# BIT RECORD

WELL NAME: #1 Knockdhu Unit  
 LOCATION: NW/NE Sec. 33, T37N, R25E  
 SURFACE CASING: 1800' of 9 5/8"  
 SPUD DATE: 3-16-96  
 T.D. DATE: 4-8-96

BIT #	1	2	3	4	5	6	7	8
SIZE (mm)	12 1/4	8 3/4	8 3/4	8 3/4	8 3/4	7 27/32	8 3/4	8 3/4
MAKE	Reed	ST	Reed	Reed	Reed	Chris	Sec.	Reed
TYPE	HP-51H	F2H	EHP-51A	EHP-51A	EHP-51A	325	S-44GF	EHP-51A
SERIAL #	L70169	LE9601	CB2945	U12272	EX4006	1900310	653833	U12272
JETS	2x14	1x12	3x12	3x12	3x12	0.7	3x13	2x12
	1x15	open1x11						1x13
OUT AT	1800	3800	4460	4908	5700	5823	5852	5977
FEET	1713	2000	660	448	792	123	29	125
HOURS	53 1/4	60 1/2	52	35	62 3/4	11	5 1/2	19
ACC. HRS.	53 1/4	60 1/2	112 1/2	147 1/2	210 1/4	221 1/4	226 3/4	245 3/4
WT.	15/30	35	15/30	15/30	15-35	5-8	40	10-15
RPM	80	75	120	40	120	75-80	60	95
PP	1400	1800	1200	1200	1500	1200	1300	1300
MUD WT	8.4	8.4	8.9	9.9	9.9	9.9	9.9	10.9
VIS			34	38	41	41	44	42
VER. DEV.	1 1/4	1/2	6 5/8	7 3/4	8 1/2	8 1/2	8 1/2	8 1/2
	TBG	T B G	T B G	T B G	T B G	T B G	T B G	T B G
COND.	4-4-I	4-E-I	4-2-1	2-E-I	4-E-I	Good	6-4-1	4-2-1
REMARKS								

# BIT RECORD

WELL NAME: #1 Knockdhu Unit  
 LOCATION: NW/NE Sec. 33,T37N,R25E  
 SURFACE CASING: 1800' of 9 5/8"  
 SPUD DATE: 3-16-96  
 T.D. DATE: 4-8-96

BIT #	9	10 RR#4
SIZE (mm)	7 27/32	8 3/4
MAKE	Chris	Reed
TYPE	325	EHP-51A
SERIAL #	1900310	U12272
JETS	0.7	2x12
		1x13
OUT AT	6018	6047
FEET	41	29
HOURS	6	4 1/2
ACC. HRS.	251 3/4	257 1/4
WT.	10-15	30
RPM	95	60
PP	600	1200
MUD WT	10.9	10.9
VIS	44	42
VER. DEV.	8 1/2	10
	TBG	T B G
COND.	Good	4-2-1
REMARKS		

## DRILL STEM TEST REPORT

Well Name and Location: #1 Knockdhu Unit NW/NE Sec.33,T37N,R25E  
 Test Number and Interval: #1 4866-4908  
 Date: 3-29-96  
 Formation: Honaker Trail  
 Test Type: Bottom Hole Conventional  
 Hole Size: 8 3/4  
 Testing Company: Baker/Schlumberger

### Mud Properties

Mud Weight: 9.9 Viscosity: 38  
 pH 10.5 Water Loss: 10  
 Water Cushion Nil

### Times and Pressures

Time and Date Tool Opened: 05:47:00 3-29-96

	Time (min)	Pressure (psi)	Bottom Hole Temperature (degrees F)
I.H.		2519	
PREFLOW	10	402-1298	
I.S.I.	30	2366	114
F.F.	60	1417-2256	
F.S.I.	120	2403	
F.H.		2479	

### Recovery and Description

Preflow Description: Opened tool with strong blow, 8" incresed to 4 1/2 psi on 1/4" choke.  
 Valve Open Description: Opened with 14" blow incresed to 3 psi in 22 min, decreased to 3 3/4 ozs at shut in.  
 Fluid Recovery: NGTS Total: 58bbls, 3bbls 86% water/14% mud, 15 bbls 90% water/10% mud, 40 bbls100% water.  
 Salinity: Top 47,000ppm .24@48 deg F, Middle 70,000ppm .14 @48 deg F, Bottom 112,000 ppm, .1 @ 48 deg F.

# BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 142519

COMPANY : PETRAL EXPLORATION

INSTRUMENT NO. HPR-C1390

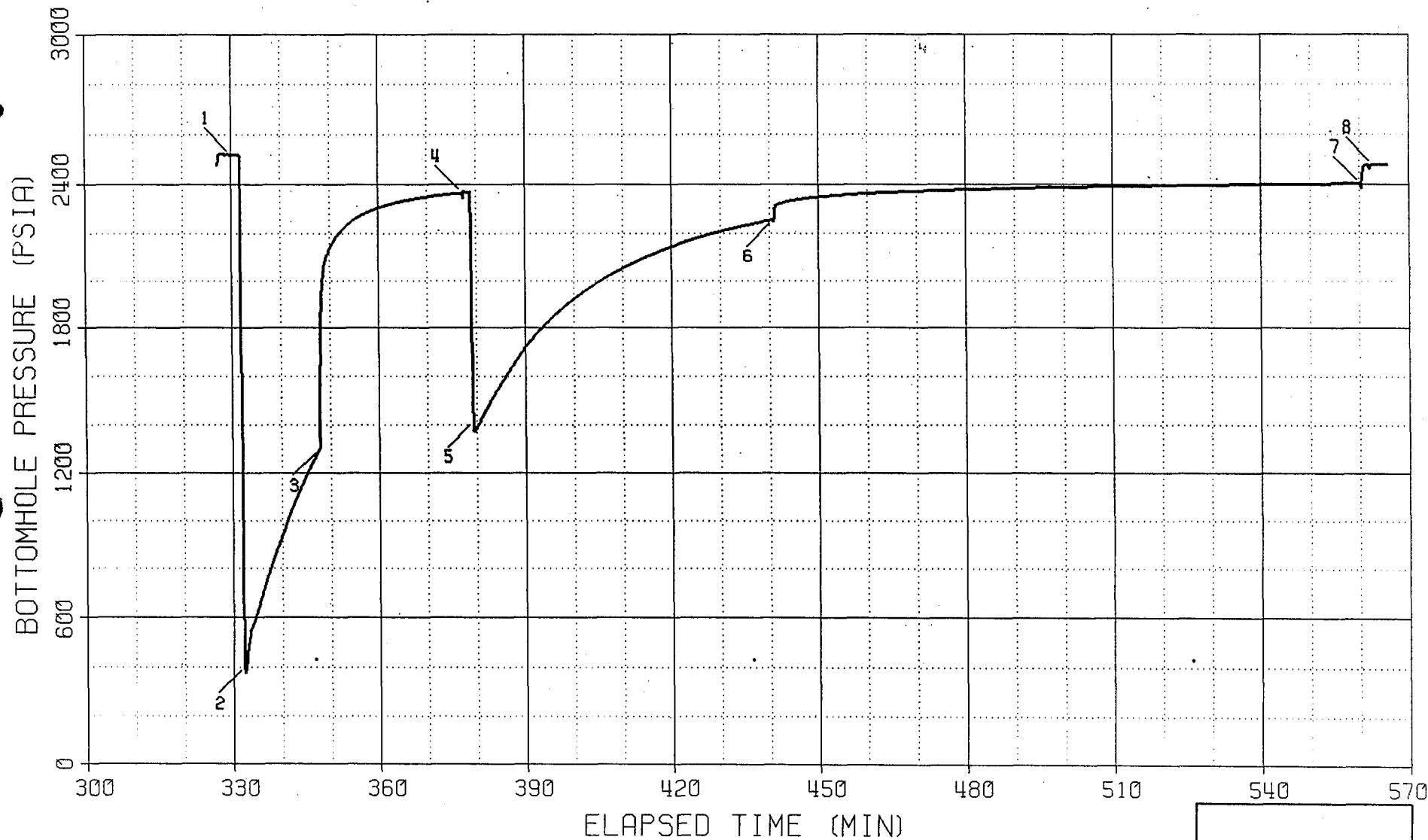
WELL : KNOCKDHU #1

DEPTH : 4836 FT

CAPACITY : 20000 PSI

Electronic Pressure Data

PORT OPENING : INSIDE



Schlumberger

## DRILL STEM TEST REPORT

Well Name and Location: #1 Knockdhu Unit NW/NE Sec.33,T37N,R25E  
 Test Number and Interval: #2 5974.5-6018  
 Date: 4-7-96  
 Formation: Lower Desert Creek Mound  
 Test Type: Bottom Hole Conventional  
 Hole Size: 8 3/4  
 Testing Company: Baker/Schlumberger

### Mud Properties

Mud Weight: 10.9 Viscosity: 44  
 pH 10.5 Water Loss: 8.5  
 Water Cushion Nil

### Times and Pressures

Time and Date Tool Opened: 05:12:40 4-7-96

	Time (min)	Pressure (psi)	Bottom Hole Temperature (degrees F)
I.H.		3354	
PREFLOW	30	85-83	
I.S.I.	60	769	127.2
F.F.	60	97-102	
F.S.I.	240	3272	
F.H.		3345	

### Recovery and Description

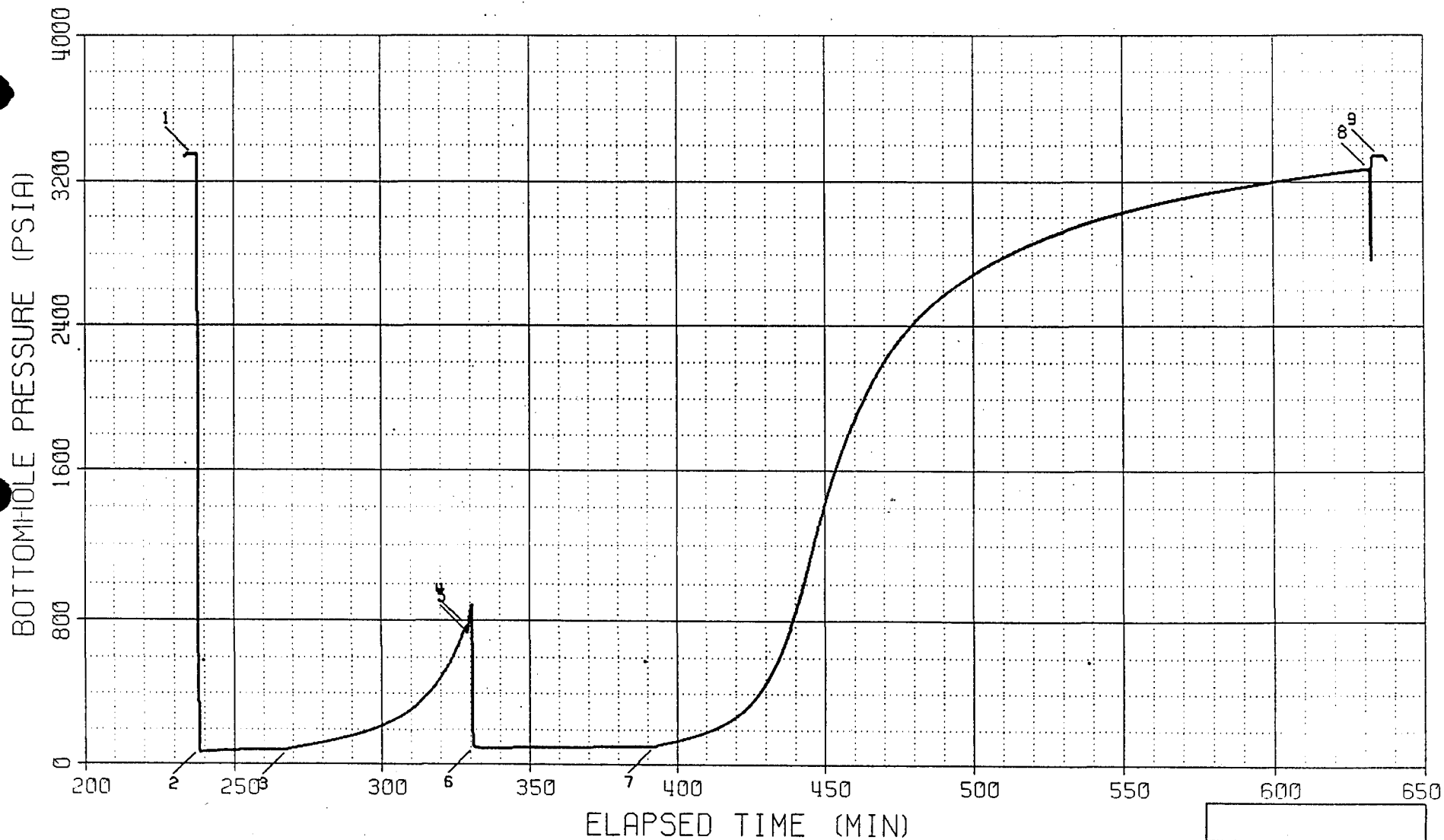
Preflow Description: Open tool w/ 1 1/2" blow, increased to 2" in 10 min.  
 dcr to 1/2" in 20 min., Steady at 1/2" to 30 min.  
 Valve Open Description: Opened with 1/2" blow, decreased to 0" in 40 min.,  
 dead in 60 min.  
 Fluid Recovery: NGTS Total: 125'-Drilling Mud.  
 Sampler: .07cf of gas, 1480cc of water, 120cc of mud.  
 Salinity: Sampler: Rw .75@68 deg F, 108K ppm Cl, Top Rw .58@68 deg F  
 Bottom Rw 5.141@68 deg F.

# BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 142521  
INSTRUMENT NO. HPR-C1390  
DEPTH : 5943 FT  
CAPACITY : 20000 PSI  
PORT OPENING : INSIDE

COMPANY : PETRAL EXPLORATION  
WELL : KNOCKDHU UNIT #1

Electronic Pressure Data



Schlumberger

## DRILL STEM TEST REPORT

Well Name and Location: #1 Knockdhu Unit NW NE Sec. 33,T37S,R25E  
Test Number and Interval: #3 5670-5750  
Date: 4-9-96  
Formation: Upper Ismay  
Test Type: Bottom Hole Straddle  
Hole Size: 8 3/4  
Testing Company: Baker/Schlumberger

### Mud Properties

Mud Weight: 10.9 Viscosity: 43  
pH 11.5 Water Loss: 8.5  
Water Cushion Nil

### Times and Pressures

Time and Date Tool Opened: 13:14 4-9-96

	Time (min)	Pressure (psi)	Bottom Hole Temperature (degrees F)
I.H.		3231.65	
PREFLOW	30	204-256	
I.S.I.	60	2240.78	124
F.F.	269	267-887	
F.S.I.	720	2293.55	
F.H.		3187.37	

### Recovery and Description

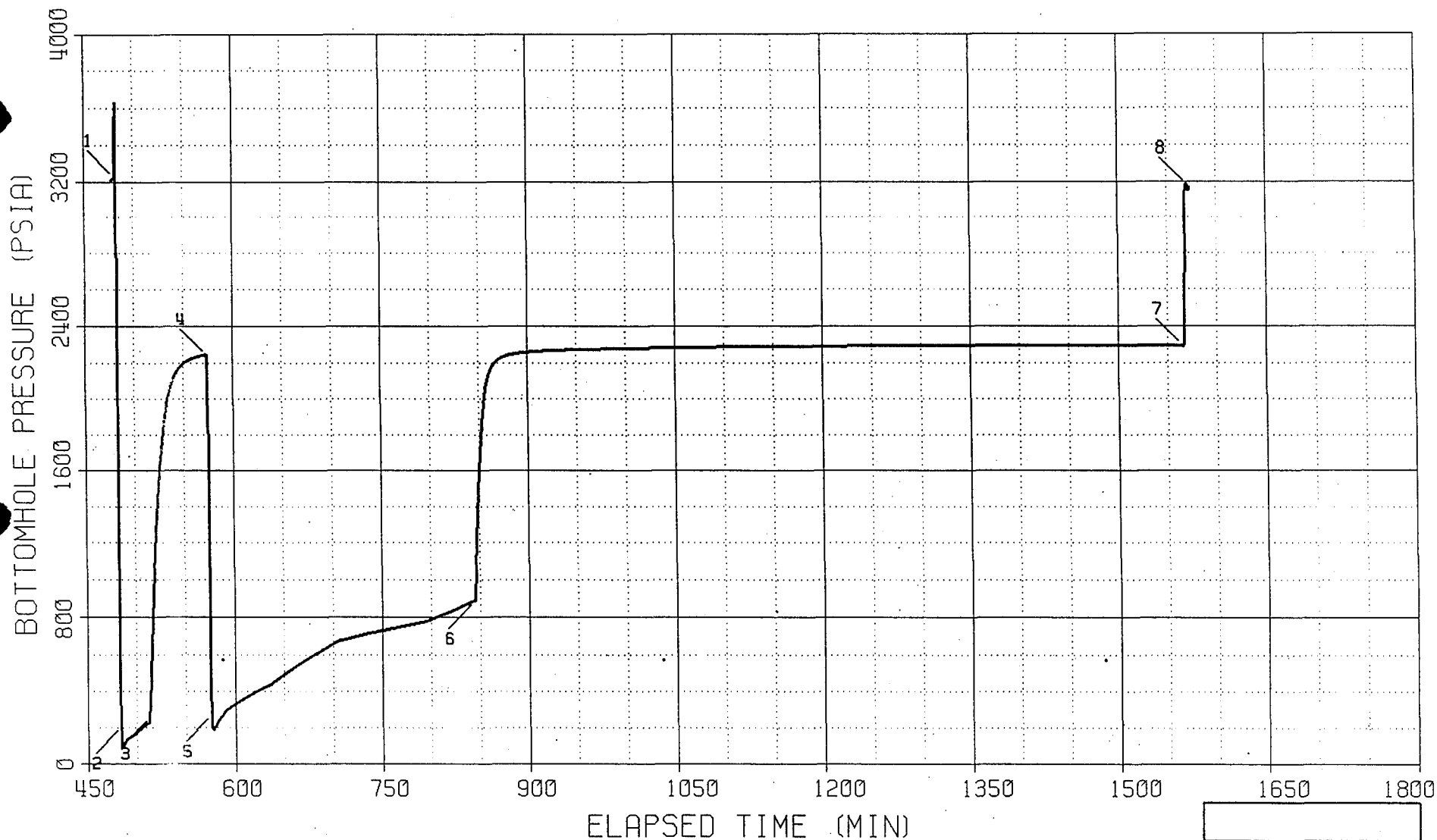
Preflow Description: Opened with 2" blow in bucket, increased to 36 psi in 30 min.  
Valve Open Description: Opened @ 1 psi, increased to 485 psi in 4 hrs.  
GTS in 8 min., 826 mcf/d @ FSI  
Fluid Recovery: Total: 300 ft. Condensate; 100 ft. Gas cut mud.  
No sampler recovery.  
Salinity: Rw 0.05@68 F Chlorides (ppm) 12,000

# BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 142578  
INSTRUMENT NO. HPR-C9060  
DEPTH : 5646 FT  
CAPACITY : 20000 PSI  
PORT OPENING : INSIDE

COMPANY : PETRAL EXPLORATION  
WELL : KNOCKDHU UNIT #1

Electronic Pressure Data



Schlumberger



# DAILY DRILLING SUMMARY

Date	Depth	Progress	Hours Drlg.	Mud Mass	Visc.	W.L.	pH	Activity
3-16-96								Rig up, Spud, Drill out.
3-17-96	312	225	9 1/4	8.4				Drill, Trip for monel DC.
3-18-96	1370	1058	19 1/4	8.4				Drilling
3-19-96	1765	707	22	8.4				Drilling
3-20-96	1800	35	2 3/4	8.4				Drill, Set surface, Pres. test.
3-21-96	2025	225	9 1/4	8.4				Nipple up, Test, Drill
3-22-96	2915	890	21 1/2	8.4				Drilling
3-23-96	3595	680	22	8.4				Drilling
3-24-96	3800	205	7 3/4	8.4				Drilling, POOH for MWD
3-25-96	4092	292	22 1/4	8.8	33	22.0	9.0	Orient MWD, Drill
3-26-96	4398	306	24.0	8.8	34	11.0	10.5	Drilling
3-27-96	4600	202	17.0	8.9	34	10.0	10.5	Drill, Trip for Bit, Drill
3-28-96	4908	308	24	8.9	33	12.0	10.0	Drilling.
3-29-96	4908	Nil	Nil	9.9	38	10.0	9.5	DST #1
3-30-96	5063	155	10 3/4	9.9	49	6.0	11.0	DST #1, TIH, Drill, POOH
3-31-96	5110	47	7	9.8	40	7.0	11.0	Change out BHA, Trip, Drill
4-1-96	5420	310	23	9.7	39	8.0	11.5	Drilling
4-2-96	5700	280	22.0	9.9	41	8.0	11.5	Drilling, Core point
4-3-96	5701	1	1/2	9.8	43	8.5	11.5	Cirr., Trip, Cut Core #1
4-4-96	5823	122	11	9.9	41	9.5	11.0	Cutting Core #1 & 2
4-5-96	5870	47	9 1/2	9.9	44	8.8	11.5	Ream Core Hole, Drill, Trip
4-6-96	5977	107	15 1/2	10.9	42	9.5	11.0	Drill, POOH Cut Core #3
4-7-96	6018	41	6.0	10.9	44	8.0	11.0	Lay down Core, DST #2
4-8-96	6047	29	4 1/2	10.9	42	8.5	10.5	DST #2, POOH, Drill to TD
4-9-96	6047	Nil	Nil	10.9	43	8.5	10.5	Logging w/Schlumberger
4-10-96	6047	Nil	Nil	10.9	44	8.5	10.5	DST #3

## LOGGING REPORT

Depth (Driller's):	6047	Date:	4-8-96
Depth (Strap)	6049.4	Logging Company:	Schlumberger
Depth (Logger's):	6037	Logging Engineer:	S.M. Williams
Surface Casing (Driller's)	1800' of 9 5/8"	Truck No:	3020
Intermediate Casing (Driller's)	Nil	Hole Size:	8 3/4

### Mud Details

Mud Type:	LSND Gel-Chem	Weight:	10.9
pH:	10.5	Viscosity:	42
Water loss:	8.5	Salinity:	9900ppm Cl

### Operations Summary

Hole conditions prior to logging:	Excellent
Circulation time after T.D.	1 1/2 Hour
Number of Wiper Trips:	Nil
Description of Wiper Trips:	
Hours Logging:	16

### Logging Sequence

Logs	Time Spent (hours)	Remarks
Array-Ind-GR-SP	5	Stacked Set
CNLD-GR-Cal	5	Stacked set
BHCS-GR-Cal	5	
Fullbore Micro Imager-GI	6	
Number of Runs in Hole:	3	Failed: Nil

### Further Remarks

Final MTD Problem: Drillers TD verified by numerous straps, including casing @ 6047  
Schlumberger reports MTD @ 6036'. GR/CBL/CCL and perforating gun  
GR both indicate Schlumberger out 11' high.

## CORE DESCRIPTION

#1 KNOCHDHU UNIT  
NW/NE SEC. 33, T37S, R25E  
Core #1&2, Upper Ismay, 5700-5822  
Cut 120 ft., Recovered 122 ft.

5700 - 5710 ft

LIMESTONE light to medium grey, algal mound, skeletal packstone, granular in part, skeletal grains throughout include green algae, minor bivalves, foraminifera, ostracods, rare echinoids & bryozoa, laminated, anhydrite & calcite infill & replacement, compaction deformation, anhydrite infill increasing with depth, coaly & carbonaceous shale laminations @ basal contact, very fine to microcrystalline, hard, dense, dolomitic, with dolomite stringers, argillaceous, massive, strong hydrocarbon odor, 4 to 8% intercrystalline porosity, occasionally pin point & vuggy porosity, slow milky cut fluorescence, yellow to white residual cut fluorescence.

5710.0 - 5738.3 ft

LIMESTONE light to medium grey, algal mound deposit, brecciated, no horizontal or vertical fractures, crinoidal, mottled, anhydrite & calcite infill, compaction deformation, carbonaceous shale depositional laminations, very fine to microcrystalline, hard, dense, dolomite, massive, argillaceous, strong hydrocarbon odor, occasionally pin point & vuggy porosity, occasional micro pore throats, 8-16% intercrystalline porosity, 6.65 md permeability, slow white milky cut fluorescence, yellow to white residual ring cut.

5738.3 - 5741.7 ft

LIMESTONE light to medium grey brown, algal mound deposit, brecciated, no horizontal or vertical fractures, slightly inclined depositional laminations, crinoidal, mottled, anhydrite & calcite infill, compaction deformation, wavy carbonaceous shale depositional laminations, very fine to microcrystalline, hard, dense, dolomitic, massive, argillaceous, strong hydrocarbon odor, occasionally pin point & vuggy porosity, occasional micro pore throats, 4 to 10% intercrystalline porosity, slow white milky cut fluorescence, yellow to white residual ring cut.

- 5741.7 - 5748.0 ft LIMESTONE light to medium grey, occasionally dark grey, abundant crinoidal fossile debris, stylolitic, brecciated, no horizontal or vertical fractures, slightly inclined depositional laminations, crinoidal, mottled, anhydrite & calcite infill, compaction deformation, wavy carbonaceous shale depositional laminations, very fine to microcrystalline, hard, dense, dolomitic, massive, argillaceous, tight, no show.
- 5748.0 - 5750.7 ft DOLOMITE light to medium grey to brown, anhydrite mottled, wavy carbonaceous depositional lamination, bleeding gas, 12-15% intercrystalline porosity, low permeability, hydrocarbon odor, slow milky cut fluorescence, white to yellow cut fluorescence.
- 5750.7 - 5759.7 ft LIMESTONE light to medium grey, agal mound deposit, stylolitic, mottled, anhydrite & calcite infill, compaction deformation, carbonaceous shale depositional lamination, very fine to microcrystalline, hard, dense, dolomitic, massive, argillaceous, strong hydrocarbon odor, occasionally pin point & vuggy porosity, occasional micro pore throats, 4 to 6% intercrystalline porosity, slow white milky cut fluorescence, yellow to white residual ring cut.
- 5759.7 - 5760.0 ft DOLOMITE medium to dark grey, rubbilized, massive, hard, no sample show.
- 5760 - 5761 ft DOLOMITE medium to dark grey, brachiopod, stylolitic, coal partings, carbonaceous, massive, hard, no sample show.
- 5761 - 5773 ft LIMESTONE light grey, agal mound deposit, no horizontal or vertical fractures, crinoidal, brachiopod, mottled, anhydrite & calcite infill, convolute compaction deformation, carbonaceous shale depositional lamination, stylolitic, very fine to microcrystalline, hard, dense, dolomitic, massive, argillaceous, strong hydrocarbon odor, occasional pin point & vuggy porosity, occasional micro pore throats, 4 to 12% intercrystalline porosity, slow white milky cut fluorescence, yellow to white residual ring cut.
- 5773.0 - 5789.3 ft LIMESTONE light grey brown, stylolitic, mottled, anhydrite & calcite infill, compaction deformation, wavy carbonaceous shale depositional laminations very fine to microcrystalline, hard, dense, dolomitic, massive, argillaceous, occasionally vuggy & pin point porosity, weak shows .

Hovenweep 5789.3

- 5789.3 - 5800.0 ft     SHALE dark grey, black, splintery, poker chiped, massive, micromicaceous, abundant brachiopod fragments, blocky, petroliferous, limy, dolomitic, milky cut fluorescence, residual ring cut.
- 5800 - 5822 ft     SHALE dark grey, black, blocky, splintery, hard, limy, dolomitic, poker chiped, massive, abundant brachiopod shell debris, micromicaceous, milky cut fluorescence, residual ring cut.

## CORE DESCRIPTION

#1 KNOCKDHU UNIT  
NW/NE SEC. 33, T37S, R25E  
Core #3, Lower Desert Creek, 5977-6018  
Cut 41 ft., Recovered 39.5 ft.

- 5977.0 - 5979.7 ft     DOLOMITE light grey, argillaceous, very fine to microcrystalline, earthy, crumbly, algal mound, crinoidal debris, course laminations, wavy in part, calcite infill, anhydrite replacement, hydrocarbon odor on fresh breaks, faint dull yellow to brown fluorescence, yellow oil fluorescence, yellow to white cut fluorescence, residual ring cut, ? oil staining, trace pin point & vuggy porosity, 10-16% intercrystalline porosity, low permeability.
- 5980.0 - 5983.3 ft     DOLOMITE light grey, argillaceous, very fine to microcrystalline, earthy, crumbly, algal mound, crinoidal debris, course laminations, wavy in part, calcite infill, anhydrite replacement, hydrocarbon odor on fresh breaks, faint dull yellow to brown fluorescence, no cut, ? oil staining, trace pin point & vuggy porosity, 12-14% intercrystalline porosity.
- 5983.3 - 6000.0 ft     DOLOMITE light grey brown, occasionally dark grey brown, submound to intermound, argillaceous, limy, mudstone to wackestone, very fine to microcrystalline, earthy, brachiopod fragments, crinoidal debris, finely laminated, wavy in part, calcite infill, anhydrite replacement, hydrocarbon odor on fresh breaks, faint dull yellow to brown fluorescence, faint white milky cut fluorescence, thin white residual ring cut, trace pin point & vuggy porosity, 11-14% intercrystalline porosity.
- 6000.0 - 6004.7 ft     DOLOMITE medium to dark grey, microcrystalline, dense, hard, weak show, as above.

### Chimney Rock Shale 6004.7

- 6004.7 - 6018.0 ft     SHALE black, dark grey, poker chiped, limy, dolomitic, petroliferous, silty, sooty texture, white milky cut fluorescence, white to yellow residual ring cut fluorescence.

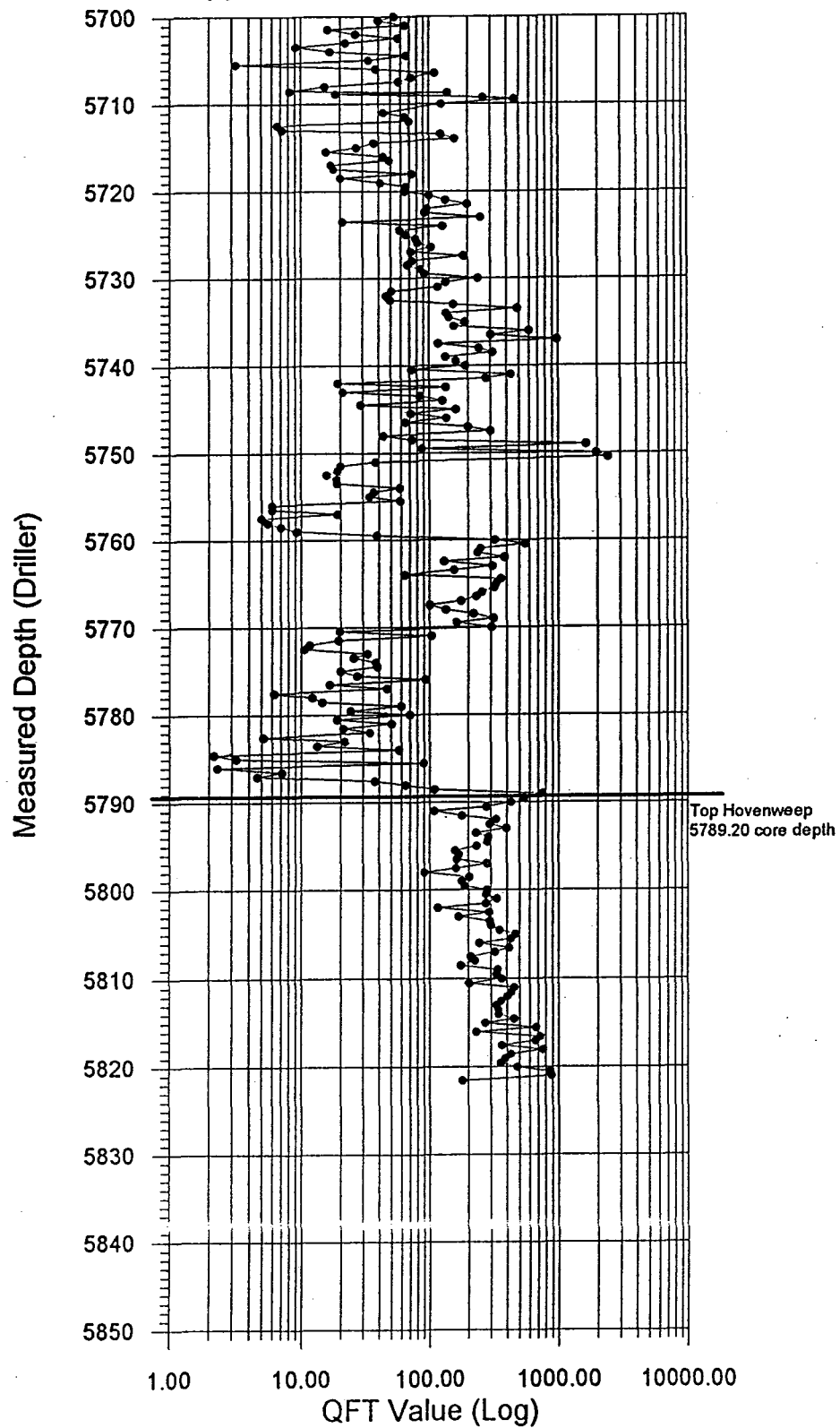
Rose Exploration Corp.  
#1 Knockdhu Unit Well

Table 1  
Mineral Analysis by X-ray Diffraction

File: 196113

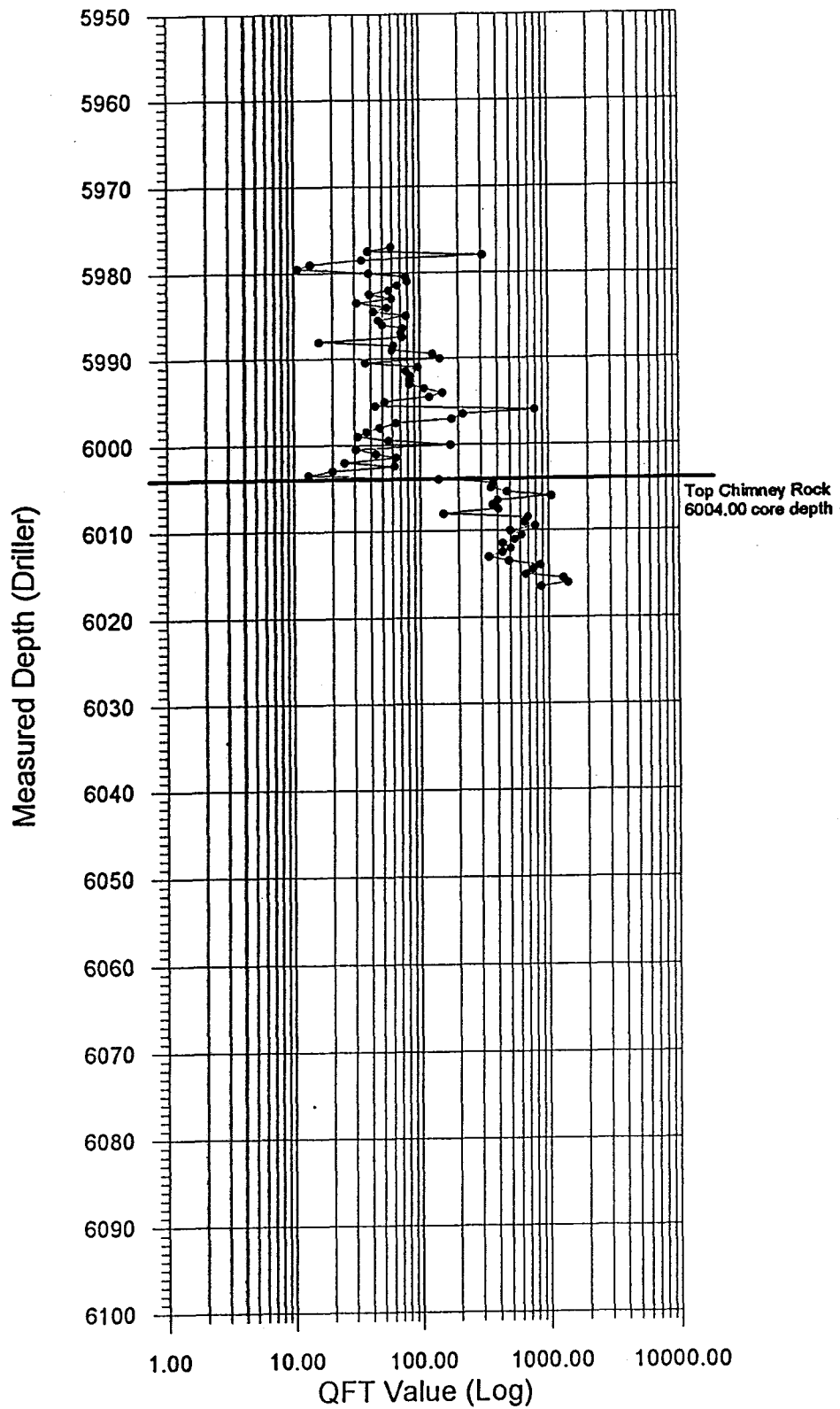
Depth, feet	Quartz	K feldspar	Plagioclase	Calcite	Dolomite	Siderite	Pyrite	Anhydrite	Halite	Illite+ smectite	Kaolinite	Chlorite
5703.5	2	0	0	1	89	0	0	8	0	0	0	0
5715.6	2	0	0	52	27	0	0	19	0	0	0	0
5725.4	4	0	0	72	21	0	0	3	0	0	0	0
5730.0	3	0	0	73	23	0	0	1	0	0	0	0
5748.4	4	0	1	1	91	0	0	2	1	0	0	0

QFT Analysis - #1 Knockdhu Unit  
ne nw 33-37S-25E  
Upper Ismay & Hovenweep Shale





**QFT Analysis - #1 Knockdhu Unit  
ne nw 33-37S-25E  
Lower Desert Creek & Chimney Rock Shale**



Depth	QFT Value	Sample ID	Sample Source
5700.00	53.10	1	Core Sample
5700.50	39.70	2	
5701.00	64.10	3	
5701.50	16.00	4	
5702.00	26.40	5	
5702.50	56.90	6	
5703.00	21.90	7	
5703.50	9.10	8	
5704.00	16.60	9	
5704.50	65.80	10	
5705.00	33.50	11	
5705.50	3.20	12	
5706.00	38.30	13	
5706.50	111.00	14	
5707.00	72.10	15	
5707.50	57.60	16	
5708.00	15.21	17	
5708.55	8.20	18	
5708.75	141.00	19	
5708.90	18.37	20	
5709.30	265.00	20A	
5709.50	459.00	21	
5710.00	125.00	22	
5710.50	0.31	23	
5711.00	44.00	24	
5711.50	64.50	25	
5712.00	69.80	26	
5712.50	6.62	27	
5713.00	7.20	28	
5713.50	124.00	29	
5714.00	159.00	30	
5714.50	36.70	31	
5715.00	26.70	32	
5715.50	15.47	33	
5716.00	43.40	34	
5716.50	48.60	35	
5717.00	16.80	36	
5717.50	17.81	37	
5718.00	73.00	38	
5718.50	19.96	39	
5719.00	41.20	40	
5719.50	65.80	41	
5720.00	64.40	42	
5720.50	100.60	43	
5721.00	134.00	44	
5721.50	198.00	45	
5722.00	96.00	46	
5722.50	91.80	47	
5723.00	252.00	48	
5723.50	20.80	49	
5724.00	128.00	50	
5724.50	58.70	51	
5725.00	66.00	52	
5725.50	78.50	53	
5726.00	81.70	54	

5726.50	104.60	55
5727.00	71.90	56
5727.50	186.00	57
5728.00	73.20	58
5728.50	67.10	59
5729.00	85.50	60
5729.50	91.50	61
5730.00	238.00	62
5730.50	135.00	63
5731.00	117.00	64
5731.50	50.50	65
5732.00	45.20	66
5732.50	49.50	67
5733.00	155.00	68
5733.50	485.00	69
5734.00	136.00	70
5734.50	143.00	71
5735.00	190.00	72
5735.50	158.00	73
5736.00	600.00	74
5736.50	303.00	75
5737.00	981.00	76
5737.50	118.00	77
5738.00	243.00	78
5738.50	311.00	79
5739.00	134.00	80
5739.50	164.00	81
5740.00	193.00	82
5740.50	72.90	83
5741.00	430.00	84
5741.50	277.00	85
5742.00	19.00	86
5742.50	134.00	87
5743.00	20.80	88
5743.50	83.70	89
5744.00	127.00	90
5744.50	28.70	91
5745.00	161.00	92
5745.50	71.60	93
5746.00	136.00	94
5746.50	64.80	95
5747.00	201.00	96
5747.50	300.00	97
5748.00	43.60	98
5748.50	73.20	99
5749.00	1650.00	100
5749.50	87.40	101
5750.00	1960.00	102
5750.50	2420.00	103
5751.00	38.00	104
5751.50	20.00	105
5752.00	19.00	106
5752.50	15.67	107
5753.00	18.67	108
5753.50	18.80	109
5754.00	58.60	110

5754.50	36.70	111
5755.00	33.90	112
5755.50	58.70	113
5756.00	6.00	114
5756.50	6.00	115
5757.00	18.85	116
5757.50	5.00	117
5758.00	5.50	118
5758.50	7.00	119
5759.00	9.20	120
5759.50	38.70	121
5760.00	323.00	122
5760.50	551.00	123
5761.00	248.00	124
5761.50	237.00	125
5762.00	382.00	126
5762.50	131.00	127
5763.00	310.00	128
5763.50	158.00	129
5764.00	64.00	130
5764.50	360.00	131
5765.00	331.00	132
5765.50	317.00	133
5766.00	256.00	134
5766.50	232.00	135
5767.00	178.00	136
5767.50	101.00	137
5768.00	135.00	138
5768.50	219.00	139
5769.00	315.00	140
5769.50	163.00	141
5770.00	303.00	MM
5770.50	19.65	LL
5771.00	102.90	KK
5771.50	19.16	JJ
5772.00	11.50	II
5772.50	10.50	HH
5773.00	32.30	GG
5773.50	25.20	FF
5774.00	37.90	EE
5774.50	38.80	DD
5775.00	20.06	CC
5775.50	26.80	BB
5776.00	93.10	AA
5776.50	16.54	Z
5777.00	46.30	Y
5777.50	6.23	X
5778.00	12.20	W
5778.50	14.47	V
5779.00	60.00	U
5779.50	24.00	T
5780.00	69.80	S
5780.50	18.92	R
5781.00	50.22	Q
5781.50	20.99	P
5782.00	34.20	O

5782.50	5.21	N
5783.00	21.59	M
5783.50	13.21	L
5784.00	56.80	K
5784.50	2.18	J
5785.00	3.21	I
5785.50	89.10	H
5786.00	2.32	G
5786.50	7.13	F
5787.00	4.62	E
5787.50	37.20	D
5788.00	64.70	C
5788.50	108.00	B
5789.00	749.00	A
5789.50	542.00	1A
5790.00	427.00	2A
5790.50	275.00	3A
5791.00	109.00	4A
5791.50	179.00	5A
5792.00	329.00	6A
5792.50	294.00	7A
5793.00	396.00	8A
5793.50	230.00	9A
5794.00	286.00	10A
5794.50	283.00	11A
5795.00	232.00	12A
5795.50	159.00	13A
5796.00	170.00	14A
5796.50	164.00	15A
5797.00	278.00	16A
5797.50	160.00	17A
5798.00	90.20	18A
5798.50	202.00	19A
5799.00	178.00	20A
5799.50	186.00	21A
5800.00	278.00	22A
5800.50	273.00	23A
5801.00	332.00	24A
5801.50	274.00	25A
5802.00	115.00	26A
5802.50	291.00	27A
5803.00	169.00	28A
5803.50	292.00	29A
5804.00	300.00	30A
5804.50	348.00	31A
5805.00	463.00	32A
5805.50	427.00	33A
5806.00	243.00	34A
5806.50	415.00	35A
5807.00	322.00	36A
5807.50	209.00	37A
5808.00	224.00	38A
5808.50	176.00	39A
5809.00	339.00	40A
5809.50	331.00	41A
5810.00	365.00	42A

5810.50	203.00	43A
5811.00	452.00	44A
5811.50	429.00	45A
5812.00	400.00	46A
5812.50	356.00	47A
5813.00	329.00	48A
5813.50	342.00	49A
5814.00	341.00	50A
5814.50	450.00	51A
5815.00	269.00	52A
5815.50	674.00	53A
5816.00	230.00	54A
5816.50	718.00	55A
5817.00	665.00	56A
5817.50	365.00	57A
5818.00	759.00	58A
5818.50	426.00	59A
5819.00	387.00	60A
5819.50	355.00	61A
5820.00	481.00	62A
5820.50	869.00	63A
5821.00	887.00	64A
5821.50	181.00	65A

5977.00	58.50	1B
5977.50	38.30	2B
5978.00	308.00	3B
5978.50	34.20	4B
5979.00	13.60	5B
5979.50	10.70	6B
5980.00	38.80	7B
5980.50	77.40	8B
5981.00	79.90	9B
5981.50	66.70	10B
5982.00	56.20	11B
5982.50	39.50	12B
5983.00	59.60	13B
5983.50	31.00	14B
5984.00	54.30	15B
5984.50	42.10	16B
5985.00	77.70	17B
5985.50	46.00	18B
5986.00	49.70	19B
5986.50	72.80	20B
5987.00	70.90	21B
5987.50	71.80	22B
5988.00	15.80	23B
5988.50	61.60	24B
5989.00	59.90	25B
5989.50	127.00	26B
5990.00	145.00	27B
5990.50	36.40	28B
5991.00	95.70	29B
5991.50	76.80	30B
5992.00	83.00	31B

5992.50	82.80	32B
5993.00	82.50	33B
5993.50	107.00	34B
5994.00	151.00	35B
5994.50	119.00	36B
5995.00	52.00	37B
5995.50	43.70	38B
5996.00	791.00	39B
5996.50	218.00	40B
5997.00	180.00	41B
5997.50	64.10	42B
5998.00	47.60	43B
5998.50	37.10	44B
5999.00	31.60	45B
5999.50	55.50	46B
6000.00	174.00	47B
6000.50	30.60	48B
6001.00	44.00	49B
6001.50	64.00	50B
6002.00	24.80	51B
6002.50	62.60	52B
6003.00	19.98	53B
6003.50	13.06	54B
6004.00	141.00	55B
6004.50	373.00	56B
6005.00	357.00	57B
6005.50	475.00	58B
6006.00	1050.00	59B
6006.50	397.00	60B
6007.00	362.00	61B
6007.50	404.00	62B
6008.00	153.00	63B
6008.50	695.00	64B
6009.00	649.00	65B
6009.50	788.00	66B
6010.00	498.00	67B
6010.50	621.00	68B
6011.00	541.00	69B
6011.50	438.00	70B
6012.00	505.00	71B
6012.50	436.00	72B
6013.00	343.00	73B
6013.50	491.00	74B
6014.00	867.00	75B
6014.50	757.00	76B
6015.00	664.00	77B
6015.50	1290.00	78B
6016.00	1410.00	79B
6016.50	877.00	80B

# CORE LABORATORIES

Company : Petral Exploration, LLC  
 Well : #1 Knockdhu Unit  
 Location : NW NE Sec 33 T37S R25E  
 Co,State : San Juan, Utah

Field : Wildcat  
 Formation : Ismay/Desert Creek  
 Coring Fluid : Water Base Mud  
 Elevation : 5568 GR

File No.: 57122-8003  
 Date : 5-Apr-1996  
 API No. :  
 Analysts: DF SS

## CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH  ft	PERMEABILITY		POROSITY (HELIUM)  %	SATURATION		GRAIN DENSITY  gm/cc	DESCRIPTION
		(MAXIMUM) K <sub>air</sub> md	(90 DEG) K <sub>air</sub> md		(PORE VOLUME) OIL %	WATER %		
Core No. 1 5700.0-5760.0 Cut 60.0' Rec. 60.0'								
1	5700.0- 01.0	0.10	0.05	4.2	0.0	41.1	2.82	Ls gry duc dol
2	5701.0- 02.0	0.61	0.55	6.4	0.0	34.5	2.78	Ls gry duc dol
3	5702.0- 03.0	4.19	3.88	11.8	0.6	20.8	2.84	Dol gry suc
4	5703.0- 04.0	2.84	2.84	11.9	0.0	15.0	2.84	Dol gry suc
5	5704.0- 05.0	3.02	2.33	13.0	1.4	42.4	2.86	Dol gry suc
6	5705.0- 06.0	1.50	1.50	11.6	0.0	7.6	2.84	Dol gry suc
7	5706.0- 07.0	1.67	1.20	9.4	0.0	17.4	2.85	Dol gry suc
8	5707.0- 08.0	0.34	0.21	5.1	0.0	30.9	2.85	Dol gry suc
9	5708.0- 09.0	0.09	0.02	3.3	0.0	53.5	2.85	Dol gry suc lmy
10	5709.0- 10.0	0.14	0.08	9.8	0.0	88.4	2.81	Dol gry suc
11	5710.0- 11.0	0.12	0.06	3.8	0.0	28.4	2.85	Dol dk gry suc lmy
12	5711.0- 12.0	1.50	1.22	7.3	1.0	13.4	2.86	Dol gry suc
13	5712.0- 13.0	0.31	0.30	6.0	0.0	33.0	2.85	Dol gry suc
14	5713.0- 14.0	0.05	0.05	2.3	0.9	21.7	2.83	Dol gry suc
15	5714.0- 15.0	2.41	1.55	3.2	0.0	18.4	2.80	Ls gry xln dol
16	5715.0- 16.0	0.02	0.02	1.1	0.0	42.8	2.75	Ls gry xln
17	5716.0- 17.0	0.31	0.26	2.3	0.0	30.7	2.77	Ls gry xln
18	5717.0- 18.0	0.01	<.01	1.6	0.0	17.9	2.75	Ls gry xln
19	5718.0- 19.0	0.16	0.14	2.9	0.0	15.9	2.77	Ls gry xln
20	5719.0- 20.0	0.27	0.22	2.7	0.0	48.1	2.77	Ls gry xln
21	5720.0- 21.0	0.77	0.68	5.4	0.0	29.7	2.75	Ls gry xln vug
22	5721.0- 22.0	4.35	3.51	7.4	0.0	19.2	2.75	Ls gry xln vug
23	5722.0- 23.0	2.90	1.82	6.5	0.0	5.2	2.76	Ls gry xln vug

Data, Full Diameter 1 - 1



# CORE LABORATORIES

Company : Petral Exploration, LLC  
Well : #1 Knockdhu Unit

Field : Wildcat  
Formation : Ismay/Desert Creek

File No.: 57122-8003  
Date : 5-Apr-1996

## C O R E   A N A L Y S I S   R E S U L T S

SAMPLE NUMBER	DEPTH  ft	PERMEABILITY		POROSITY (HELIUM)  %	SATURATION		GRAIN DENSITY  gm/cc	DESCRIPTION
		(MAXIMUM) Kair md	(90 DEG) Kair md		(PORE VOLUME) OIL %	WATER %		
24	5723.0- 24.0	8.29	7.69	9.2	1.0	14.2	2.74	Ls gry xln 'vug
25	5724.0- 25.0	3.30	2.69	8.6	1.6	11.0	2.73	Ls gry xln vug
26	5725.0- 26.0	6.65	3.15	9.7	0.0	10.4	2.74	Ls gry xln vug
27	5726.0- 27.0	9.06	7.07	9.0	0.0	14.7	2.73	Ls gry xln vug
28	5727.0- 28.0	5.98	5.52	9.5	0.0	10.0	2.73	Ls gry xln vug
29	5728.0- 29.0	2.28	2.02	7.1	0.0	11.8	2.77	Ls gry xln vug
30	5729.0- 30.0	6.75	3.12	9.0	0.0	16.6	2.74	Ls gry xln vug
31	5730.0- 31.0	2.54	1.58	7.6	0.0	10.3	2.73	Ls gry xln vug
32	5731.0- 32.0	2.25	1.97	7.8	0.0	11.9	2.75	Ls gry xln vug
33	5732.0- 33.0	2.30	2.20	7.1	1.1	10.0	2.74	Ls gry xln vug
34	5733.0- 34.0	6.70	4.07	5.9	0.9	15.2	2.75	Ls gry xln vug
35	5734.0- 35.0	0.33	0.21	3.3	0.0	13.7	2.76	Ls gry xln vug
36	5735.0- 36.0	0.34	0.32	4.1	0.0	11.2	2.76	Ls gry xln vug
37	5736.0- 37.0	0.02	0.02	2.8	0.0	41.9	2.74	Ls gry xln
38	5737.0- 38.0	0.09	0.04	2.3	0.0	28.5	2.75	Ls gry xln
39	5738.0- 39.0	0.17	0.13	2.0	0.0	57.7	2.70	Ls gry xln shy
40	5739.0- 40.0	0.04	0.02	13.7	0.0	46.8	2.86	Dol dk brn suc
41	5740.0- 41.0	0.06	0.06	12.6	0.0	61.8	2.74	Ls dk brn suc dol
42	5741.0- 42.0	0.87	0.87	1.4	0.0	35.2	2.76	Ls dk gry xln
43	5742.0- 43.0	0.04	0.04	0.7	0.0	31.3	2.70	Ls dk gry xln foss
44	5743.0- 44.0	0.01	0.01	0.2	8.9	35.6	2.69	Ls dk gry xln foss
45	5744.0- 45.0	0.01	<.01	0.7	14.2	47.4	2.70	Ls dk gry xln foss
46	5745.0- 46.0	0.09	<.01	0.1	5.8	69.8	2.73	Ls dk gry xln foss shy
47	5746.0- 47.0	0.41	0.26	1.6	0.0	78.6	2.73	Ls dk gry xln foss shy
48	5747.0- 48.0	0.03	0.02	0.1	9.3	42.3	2.68	Ls gry suc foss
49	5748.0- 49.0	0.30	0.28	15.3	8.1	29.7	2.88	Dol gry suc
50	5749.0- 50.0	1.88	0.76	17.3	0.6	47.4	2.83	Dol gry suc anhy
51	5750.0- 51.0	2.74	2.49	20.7	8.3	33.3	2.83	Dol gry suc anhy
52	5751.0- 52.0	0.05	0.05	1.1	0.0	26.7	2.76	Ls gry xln brec

Data, Full Diameter 1 - 2

# CORE LABORATORIES

Company : Petral Exploration, LLC  
Well : #1 Knockdhu Unit

Field : Wildcat  
Formation : Ismay/Desert Creek

File No.: 57122-8003  
Date : 5-Apr-1996

## CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH  ft	PERMEABILITY		POROSITY (HELIUM) %	SATURATION		GRAIN DENSITY gm/cc	DESCRIPTION
		(MAXIMUM) Kair md	(90 DEG) Kair md		(PORE VOLUME) OIL %	WATER %		
53	5752.0- 53.0	0.27	0.04	0.8	0.0	49.1	2.77	Ls gry xln brec
54	5753.0- 54.0	0.09	0.08	1.1	0.0	22.7	2.76	Ls gry xln brec
55	5754.0- 55.0	0.04	0.03	1.7	0.0	12.2	2.76	Ls gry xln brec
56	5755.0- 56.0	0.06	0.02	1.2	0.0	17.9	2.74	Ls gry xln anhy
57	5756.0- 57.0	0.46	0.37	9.7	0.0	13.3	2.83	Dol gry xln lmy anhy
58	5757.0- 58.0	0.12	0.11	2.8	0.0	26.6	2.81	Ls gry xln dol anhy
59	5758.0- 59.0	0.16	0.06	2.1	0.0	26.1	2.79	Ls gry xln
60	5759.0- 60.0	0.11	0.07	9.0	0.0	74.0	2.84	Dol gry suc
Core No. 2 5760.0-5823.0 Cut 63.0' Rec. 62.0'								
61	5760.0- 61.0	0.81	0.09	2.9	36.7	10.5	2.77	Ls dk gry suc shy
62	5761.0- 62.0	0.07	0.04	2.0	31.1	12.4	2.71	Ls dk gry suc
63	5762.0- 63.0	0.05	0.01	1.1	35.6	14.2	2.71	Ls dk gry suc
64	5763.0- 64.0	0.02	0.02	1.1	28.6	11.4	2.71	Ls dk gry suc
65	5764.0- 65.0	0.32	0.07	1.2	28.5	11.4	2.71	Ls dk gry suc
66	5765.0- 66.0	0.03	0.02	2.1	35.9	10.3	2.71	Ls dk gry suc
67	5766.0- 67.0	0.02	0.02	0.5	0.0	15.7	2.73	Ls gry xln
68	5767.0- 68.0	0.25	0.11	0.4	0.0	15.8	2.72	Ls gry xln shy
69	5768.0- 69.0	0.08	0.05	1.0	0.0	34.8	2.73	Ls gry xln shy
70	5769.0- 70.0	1.08	0.15	1.1	0.0	14.5	2.73	Ls gry xln shy
71	5770.0- 71.0	<.01	<.01	1.5	7.9	31.8	2.75	Ls gry xln
72	5771.0- 72.0	0.01	0.01	7.6	0.0	48.0	2.73	Ls gry xln
73	5772.0- 73.0	<.01	<.01	1.7	0.0	28.9	2.78	Ls gry xln anhy
74	5773.0- 74.0	3.35	2.10	7.7	0.0	32.6	2.83	Dol gry suc anhy
75	5774.0- 75.0	2.02	1.83	12.0	0.0	41.4	2.85	Dol gry suc anhy
76	5775.0- 76.0	16.1	13.8	11.5	0.0	21.4	2.79	Dol gry suc lmy
77	5776.0- 77.0	1.86	1.48	7.9	0.9	26.3	2.80	Dol gry suc lmy
78	5777.0- 78.0	0.76	0.69	5.7	2.1	34.9	2.82	Dol gry suc anhy

Data, Full Diameter 1 - 3

# CORE LABORATORIES

Company : Petral Exploration, LLC  
Well : #1 Knockdhu Unit

Field : Wildcat  
Formation : Ismay/Desert Creek

File No.: 57122-8003  
Date : 5-Apr-1996

## CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH ft	PERMEABILITY		POROSITY (HELIUM) %	SATURATION (PORE VOLUME)		GRAIN DENSITY gm/cc	DESCRIPTION
		(MAXIMUM) Kair md	(90 DEG) Kair md		OIL %	WATER %		
79	5778.0- 79.0	0.17	0.14	3.9	1.6	10.9	2.82	Dol gry suc
80	5779.0- 80.0	1.74	1.19	9.6	0.0	38.3	2.81	Dol gry suc
81	5780.0- 81.0	0.31	0.25	8.5	0.8	51.2	2.77	Ls gry/brn suc
82	5781.0- 82.0	0.67	0.57	14.4	0.4	43.3	2.84	Ls gry/brn suc
83	5782.0- 83.0	0.19	0.17	4.6	0.4	17.0	2.79	Ls gry/brn suc anhy
84	5783.0- 84.0	0.07	0.07	3.4	0.0	25.8	2.74	Ls gry/brn suc
85	5784.0- 85.0	4.21	3.96	17.1	0.5	20.8	2.83	Dol gry suc
86	5785.0- 86.0	0.14	0.13	5.9	0.6	11.8	2.75	Ls gry suc
87	5786.0- 87.0	0.01	0.01	0.6	0.0	20.9	2.74	Ls gry suc
88	5787.0- 88.0	0.04	<.01	9.6	0.7	38.9	2.79	Ls gry suc dol
89	5788.0- 89.0	0.02	0.02	2.6	9.7	58.1	2.70	Ls gry suc
	5789.0- 22.0							Sh -- No Analysis
	5822.0- 23.0							Lost core
Core No. 3 5977.0-6018.0 Cut 41.0' Rec. 39.5'								
90	5977.0- 78.0	0.09	0.08	3.5	0.0	59.2	2.67	Ls dk gry suc dol sdy
91	5978.0- 79.0	0.23	0.20	8.6	0.0	48.0	2.79	Ls dk gry suc dol sdy
92	5979.0- 80.0	8.63	0.69	2.3	0.0	56.1	2.81	Ls dk gry suc dol sdy
93	5980.0- 81.0	0.08	0.03	8.0	0.0	72.1	2.69	Ls dk gry suc dol sdy
94	5981.0- 82.0	0.04	0.02	7.2	0.0	60.0	2.65	Ls dk gry suc dol sdy
95	5982.0- 83.0	0.06	0.02	6.7	0.0	46.1	2.67	Ls dk gry suc dol sdy
96	5983.0- 84.0	0.04	0.03	5.0	0.0	65.2	2.61	Ls dk gry suc dol sdy
97P	5984.0- 85.0	0.13		13.4	3.1	40.9		Ls dk gry suc dol sdy
98	5985.0- 86.0	0.02	0.02	4.8	0.0	83.8	2.61	Ls dk gry suc dol sdy
99	5986.0- 87.0	7.82	0.66	1.7	0.0	86.2	2.63	Ls dk gry suc dol sdy
100	5987.0- 88.0	0.03	<.01	0.1	0.0	63.7	2.65	Ls dk gry suc dol slty
101	5988.0- 89.0	<.01	<.01	0.1	0.0	85.4	2.63	Ls dk gry suc dol shy
102	5989.0- 90.0	<.01	<.01	0.1	0.0	75.9	2.62	Ls dk gry suc dol shy

Data, Full Diameter 1 - 4

# CORE LABORATORIES

Company : Petral Exploration, LLC  
Well : #1 Knockdhu Unit

Field : Wildcat  
Formation : Ismay/Desert Creek

File No.: 57122-8003  
Date : 5-Apr-1996

## CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH  ft	PERMEABILITY		POROSITY (HELIUM)  %	SATURATION		GRAIN DENSITY  gm/cc	DESCRIPTION
		(MAXIMUM) K <sub>air</sub> md	(90 DEG) K <sub>air</sub> md		(PORE VOLUME) OIL %	WATER %		
103	5990.0- 91.0	<.01	<.01	0.1	0.0	44.6	2.64	Ls dk gry suc dol shy
104	5991.0- 92.0	<.01	<.01	0.1	0.0	72.9	2.62	Ls dk gry suc dol shy
105	5992.0- 93.0	<.01	<.01	0.1	0.0	80.3	2.63	Ls dk gry suc dol shy
106	5993.0- 94.0	<.01	<.01	0.2	0.0	77.8	2.63	Ls dk gry suc dol shy
107	5994.0- 95.0	0.01	<.01	0.8	0.0	73.9	2.66	Ls dk gry suc foss shy
108	5995.0- 96.0	0.01	<.01	2.6	9.3	79.2	2.67	Ls dk gry suc foss shy
109	5996.0- 97.0	0.05	0.04	7.4	13.0	70.7	2.72	Ls dk gry suc dol shy
110	5997.0- 98.0	0.01	0.01	0.5	0.0	91.0	2.64	Ls dk gry suc shy
111	5998.0- 99.0	<.01	<.01	0.1	0.0	74.4	2.65	Ls dk gry suc shy
112	5999.0- 00.0	<.01	<.01	0.1	0.0	69.0	2.66	Ls gry suc shy
113	6000.0- 01.0	0.01	<.01	2.3	6.4	77.0	2.71	Ls gry suc shy
114	6001.0- 02.0	<.01	<.01	0.3	0.0	74.1	2.67	Ls gry suc shy
115	6002.0- 03.0	<.01	<.01	0.4	0.0	86.8	2.66	Ls gry suc shy
116	6003.0- 04.0	<.01	<.01	0.3	11.6	61.7	2.67	Ls gry suc shy
	6004.0- 16.0							Sh -- No Analysis

p=Plug Sample

# Correlation Coregraph

Petral Exploration, LLC

#1 Knockdhu Unit

Wildcat

San Juan Co, Utah

Upper Ismay (5700.0-5823.0 feet)

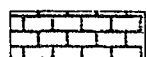
Cores 1, 2

Core Laboratories

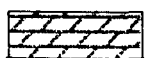
5-Apr-1996

Vertical Scale  
5.00 in = 100.0 ft

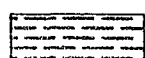
- Lithology Legend -



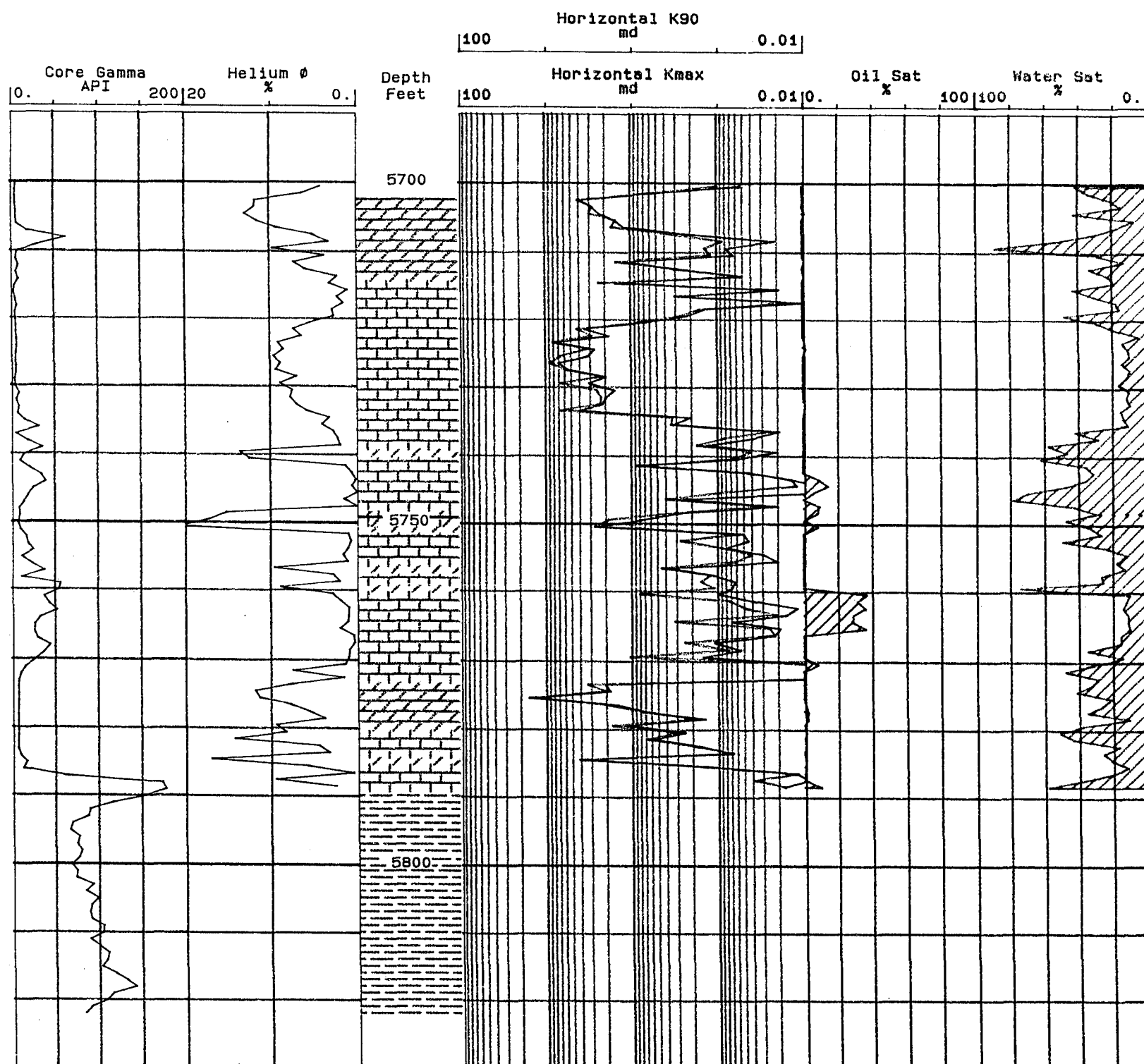
Limestone



Dolomite



Shale



# Correlation Coregraph

Petral Exploration, LLC

#1 Knockdhu Unit

Wildcat

San Juan Co, Utah

Desert Creek (5977.0-6016.5 feet)

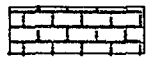
Core 3

Core Laboratories

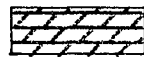
5-Apr-1996

Vertical Scale  
5.00 in = 100.0 ft

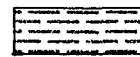
## - Lithology Legend -



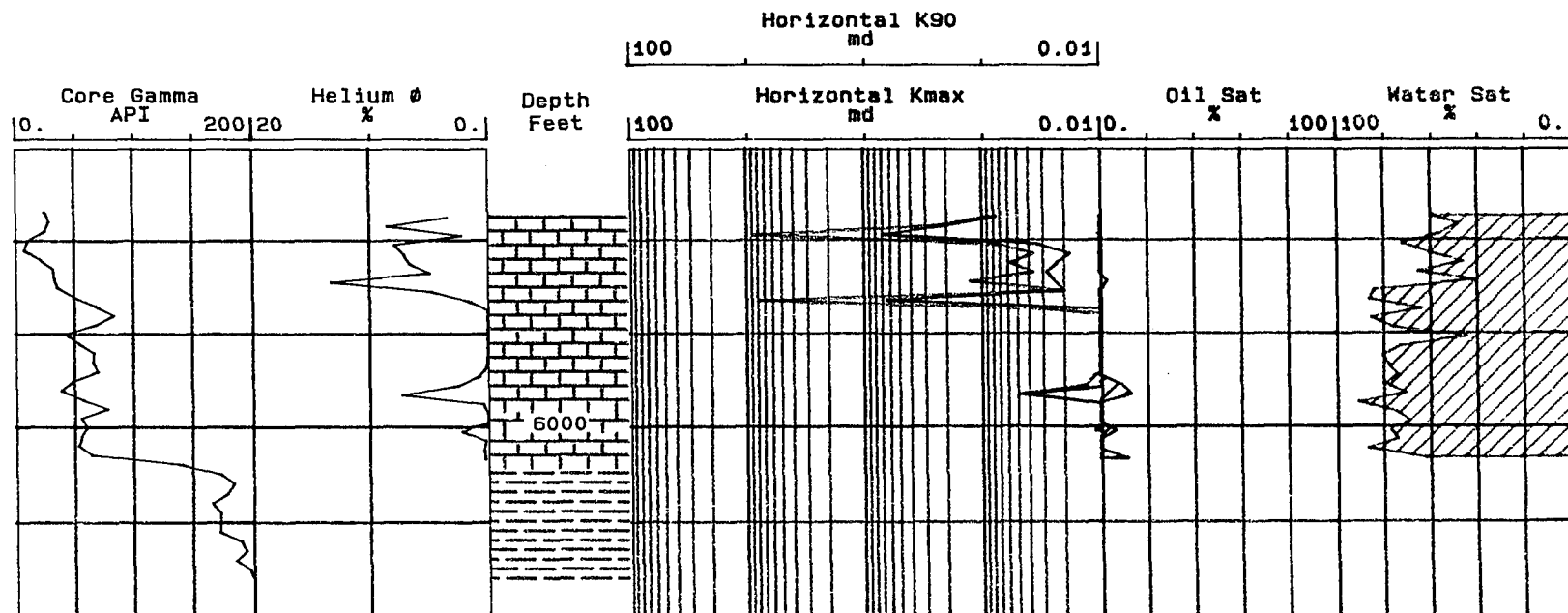
Limestone



Dolomite



Shale



## FORMATION EVALUATION

### PETRAL #1 KNOCKDHU UNIT NW/NE Sec. 33, T37S, R25E

Decollement Consulting rigged up 6:00 p. m. March 22, 1996. The objective at #1 Knockdhu was the Upper Ismay and Lower Desert Creek Formations. The targets were cored and tested. Sampling and gas detection started at 3800' and continued to total depth. QFT (Quantitative Fluorescence Technique) and QGM (Quantitative Gas Measurement) gas trap were also provided. QFT was ran on cuttings from 5000' to total depth and at 6" intervals on the cored section. The samples were washed and dried with the Mole Sample System. Schlumberger ran a complete suite of logs including the dip-meter. The Knockdhu was a 3-D geophysical target and the well was directionally drilled S88W with 323' of closure at the bottom hole location.

#### Upper Ismay Mound (5694MD)

The Upper Ismay Mound was marked by a sharp change in drill time (1 foot was cut). The sample was circulated to surface and no change was noted. Four more feet were drilled and a light brown, tan, dolomitic Limestone was seen in the samples. The Upper Ismay had intercrystalline porosity, pin points with minor vugs, and good sample shows. The Core barrel was picked up and Cores #1&2 cut 87' of Mound and 33' of Hovenweep Shale. The Core appeared tight on the surface due to spun calcite that was used as a lost circulation material. The chips taken had pore throats, pin points and intercrystalline porosity, but optical porosity was estimated at 4-6%. Early core results indicated 32' of

over 10% porosity and these findings was later supported by E-logs. QFT readings indicated a gas zone rather than a oil wet zone. DST #3 was ran to evaluate the Upper Ismay and 832 mcf/d of gas was gauged at the surface (see DST #3). The QFT was helpfull in planning the completion of the well by indicating a condensate/water contact. The Chromatograph readings from the gas recovered at the surface after the test indicate a gas that is very high in BTU's with 250-400 units of iso and normal pentane.

**CONCLUSION:** Information gained from DST#3, QFT, E-logs, and Core data led to the decision to run pipe resulting in a cased Gas Well.

**Lower Desert Creek Mound (5961MD)**

The Lower Desert Creek Mound was picked by a suttle change in drill time and Core #3 was cut. The core was described as limy Dolomite grading to dolomitic Limestone. The rock was light grey, light brown, argillaceous, very fine to microcrystalline. The core had strong hydrocarbon odor, poor to fair sample shows and 8-10% intercrystalline porosity. There was a trace of pin point, vuggy and pore porosity but analisis indicated very low permeability. QFT results were generally not in the hydrocarbon window and the quality of the reservior was generally poor. DST #2 supports these finding (see DST #2).

**CONCLUSION:** The Lower Desert Creek has good source rock in the Chimney Rock below but the Mound was not developed.



## LITHOLOGIC DESCRIPTIONS

PETRAL EXPLORATION, LLC (PE)  
#1 KNOCKDHU UNIT  
NW/NE SEC.33,T37S,R25E

- |                |   |
|----------------|---|
| 4000 - 4010 ft | <u>SANDSTONE</u> red, red to brown, very fine to fine grained, sub angular, fair to well sorted, predominantly unconsolidated, calcareous cement, clay matrix, no sample show.                                  |
| 4010 - 4036 ft | <u>SHALE</u> red brown, red, silty, silt laminations, trace white chalky anhydritic, blocky, firm, earthy.  |
| 4036 - 4044 ft | <u>SILTSTONE</u> brown, red, arenaceous, argillaceous, white chalky anhydritic, blocky, firm.   |
| 4044 - 4068 ft | <u>SHALE</u> red brown, red, silty, silt laminations, trace white chalky anhydrite, blocky, firm, earthy.   |
| 4068 - 4086 ft | <u>SANDSTONE</u> red brown, red, white, clear, quartzose, very fine to fine grained, sub angular, fair to well sorted, calcareous cement, clay matrix, predominantly unconsolidated, micaceous, no sample show. |
| 4086 - 4104 ft | <u>SHALE</u> red brown, variable colored, silty, silt laminations, trace white chalky anhydrite, blocky, firm.  |
| 4104 - 4111 ft | <u>SILTSTONE</u> red, red brown, arenaceous, argillaceous, white chalky anhydrite laminations.  |
| 4111 - 4122 ft | <u>SHALE</u> red brown, variable colored, silty, silt laminations, trace white chalky anhydritic, blocky, firm.   |
| 4122 - 4134 ft | <u>SANDSTONE</u> red brown, red, white, clear, quartzose, very fine to fine grained, sub angular, fair to well sorted, calcareous cement, clay matrix, predominantly unconsolidated, micaceous, no sample show. |
| 4134 - 4138 ft | <u>SHALE</u> red brown, variable colored, silty, silt laminations, trace white chalky anhydrite, blocky, firm.  |

- 4138 - 4146 ft      SILTSTONE red, red brown, arenaceous, argillaceous, white chalky anhydrite lamination.
- 4146 - 4158 ft      SANDSTONE red brown, red, white, clear, quartzose, very fine to fine grained, sub angular, fair to well sorted, calcareous cement, clay matrix, predominantly unconsolidated, micaceous, no sample show.
- 4158 - 4166 ft      SHALE red brown, variable colored, silty, silt laminations, trace white chalky anhydrite, blocky, firm.
- 4166 - 4172 ft      SANDSTONE red brown, red, white, clear, quartzose, very fine to fine grained, sub angular, fair to well sorted, calcareous cement, clay matrix, predominantly unconsolidated, micaceous, no sample show.
- 4172 - 4215 ft      SHALE red brown, variable colored, silty, silt laminations, trace white chalky anhydrite, blocky, firm.
- 4215 - 4226 ft      SILTSTONE red, red brown, arenaceous, argillaceous, white chalky anhydrite laminations.
- 4226 - 4240 ft      SANDSTONE red brown, red, white, clear, quartzose, very fine to fine grained, sub angular, fair to well sorted, calcareous cement, clay matrix, predominantly unconsolidated, micaceous, no sample show.
- 4240 - 4248 ft      SILTSTONE red, red to brown, arenaceous, argillaceous, white chalky anhydrite laminations.
- 4248 - 4254 ft      SHALE red brown, variable colored, silty, silt laminations trace white chalky anhydrite, blocky, firm.
- 4254 - 4262 ft      SILTSTONE red, red brown, arenaceous, argillaceous, white chalky anhydrite laminations.
- 4262 - 4288 ft      SANDSTONE red brown, red, white, clear, quartzose, very fine to fine grained, sub angular, fair to well sorted, calcareous cement, clay matrix, predominantly unconsolidated, micaceous, no sample show.

- 4288 - 4295 ft      SHALE red brown, variable colored, silty, silt laminations, trace white chalky anhydrite, blocky, firm.
- 4295 - 4300 ft      SILTSTONE red, red brown, arenaceous, argillaceous, white chalky anhydrite laminations.
- 4300 - 4308 ft      LIMESTONE white, very fine to microcrystalline, dense, dolomitic, firm to hard.
- 4308 - 4352 ft      SHALE red brown, variable colored, silty, silt lamination, trace white chalky anhydrite, blocky, firm.
- 4352 - 4368 ft      SANDSTONE white, clear, variable colored, quartzose, medium to coarse grained, sub angular, poor sorted, clay matrix & cement, predominately unconsolidated, no sample show.
- 4368 - 4387 ft .      SHALE red brown, variable colored, silty, silt laminations, trace white chalky anhydrite, blocky, firm.
- 4387 - 4395 ft      SILTSTONE red, red to brown, arenaceous, argillaceous, white chalky anhydrite laminations.
- 4395 - 4405 ft      SHALE red brown, variable colored, silty, silt laminations trace white chalky anhydrite, blocky, firm.
- 4405 - 4413 ft      SANDSTONE light green, red, white, clear, quartzose, very fine to fine grained, sub angular, fair to well sorted, calcareous cement, chlorite matrix & cement, clay matrix, predominantly unconsolidated, micaceous, no sample show.
- 4413 - 4444 ft      SHALE red brown, variable colored, silty, silt laminations, trace white chalky anhydrite, blocky, firm.
- 4444 - 4455 ft      SILTSTONE red, red to brown, arenaceous, argillaceous, white chalky anhydrite lamination.
- 4455 - 4470 ft      SHALE red brown, variable colored, silty, silt laminations, trace white chalky anhydrite, blocky, firm.
- 4470 - 4505 ft      SANDSTONE white, clear, quartzose, fine to medium grained, sub angular, fair to well sorted, calcareous cement, clay matrix, predominantly unconsolidated, micaceous, no sample show.

- 4505 - 4514 ft      SILTSTONE red, red to brown, arenaceous, argillaceous, white chalky anhydrite laminations.
- 4514 - 4522 ft      SANDSTONE white, clear, quartzose, fine to medium grained, sub angular, fair to well sorted, calcareous cement, clay matrix, predominantly unconsolidated, micaceous, no sample show.
- 4522 - 4538 ft      SHALE light to medium grey, variable colored, silty, silt laminations, trace white chalky anhydrite, blocky, firm.

Honiker Trail 4538.0

- 4538 - 4600 ft      LIMESTONE light grey, earthy, lithographic, very fine to microcrystalline, dense, soft to firm.
- 4600 - 4613 ft      LIMESTONE light grey, white, silty, argillaceous, sandy, marly, sucrosic texture, dolomitic, earthy, lithographic, very fine to microcrystalline, dense, soft to firm.
- 4613 - 4627 ft      SANDSTONE light green, white, clear, quartzose, very fine to fine grained, sub angular, fair to well sorted, clay & chlorite cement, calcareous cement, tight, clay filled, no show.
- 4627 - 4666 ft      LIMESTONE light grey, white, silty, argillaceous, sandy, marly, sucrosic texture, dolomitic, earthy, lithographic, soft to firm, grey brown, micro to cryptocrystalline, dark grey, siliceous, packstone to grainstone in part, shell debris, gastropod fragments, very fine to microcrystalline, dense, hard.
- 4666 - 4688 ft      SANDSTONE light green, light brown, micaceous, abundant biotite, white, clear, quartzose, very fine to fine grained, sub angular, fair to well sorted, clay & chlorite cement, calcareous cement, tight, clay filled, no show.
- 4688 - 4700 ft      SILTSTONE green, brown, arenaceous, argillaceous, limy, micaceous, silty, sandy, occasionally chloritic.
- 4700 - 4712 ft      SHALE green, brown, micaceous, silty, sandy.
- 4712 - 4732 ft      SILTSTONE green, brown, arenaceous, argillaceous, limy, micaceous, silty, sandy, occasionally chloritic.

- 4732 - 4745 ft      SANDSTONE white, clear, quartzose, fine to medium grained, sub angular, fair to well sorted, predominantly unconsolidated, occasionally clay & chlorite cement, calcareous cement, tight, clay filled, no show.
- 4745 - 4770 ft      SHALE dark grey to brown, earthy, limy, soft to firm, micaceous, silty, sandy.
- 4770 - 4776 ft      SILTSTONE green, brown, arenaceous, argillaceous, limy, micaceous, silty, sandy, occasionally chloritic.
- 4776 - 4794 ft      LIMESTONE light grey, white, cream, silty, argillaceous, sandy, marly, sucrosic texture, dolomitic, earthy, lithographic, soft to firm, grey brown, micro to cryptocrystalline, dark grey, siliceous, packstone to grainstone in part, shell debris, gastropod fragments, very fine to microcrystalline, dense, hard.
- 4794 - 4807 ft      LIMESTONE grey to brown, brown, mottled, dolomitic, very fine to microcrystalline, occasionally micro to cryptocrystalline, dark grey, siliceous, 6 to 8% intercrystalline porosity, milky cut fluorescence, yellow to white residual ring cut, no oil fluorescence, dense, hard.
- 4807 - 4826 ft      SILTSTONE green, brown, arenaceous, argillaceous, limy, micaceous, silty, sandy, occasionally chloritic.
- 4826 - 4838 ft      SHALE green, brown, micaceous, silty, sandy.
- 4838 - 4858 ft      SILTSTONE green, brown, arenaceous, argillaceous, limy, micaceous, silty, sandy, occasionally chloritic.
- 4858 - 4867 ft      SANDSTONE white, light green, very fine to fine grained, sub angular, fair to well sorted, clay matrix, clay & calcareous cement, tight, no show.
- 4867 - 4902 ft      SANDSTONE white, clear, light green, medium to coarse grained, sub angular, rounded, poor sorted, clay matrix, calcareous cement, predominantly unconsolidated, 16 to 24% intergrainular porosity, no sample show.

- 4902 - 4930 ft      LIMESTONE light grey, white, silty, argillaceous, sandy, marly, sucrosic texture, dolomite, earthy, lithographic, soft to firm, grey brown, micro to cryptocrystalline, dark grey, siliceous, packstone to grainstone in part, shell to debris, gastropod fragments, very fine to microcrystalline, dense, hard.
- 4930 - 4937 ft      LIMESTONE light grey, silty, argillaceous, sandy, marly, sucrosic texture, dolomitic, earthy, lithographic, soft to firm.
- 4937 - 4954 ft      SHALE brown, micaceous, limy, earthy, silty, sandy.
- 4954 - 4968 ft      SANDSTONE white, clear, quartzose, fine to medium grained, sub angular, fair to well sorted, predominantly unconsolidated, occasionally clay & chlorite cement, calcareous cement, tight, clay filled, no show.
- 4968 - 4988 ft      SHALE brown, micaceous, limy, earthy, silty, sandy.
- 4988 - 5000 ft      SANDSTONE white, clear, quartzose, fine to medium grained, sub angular, fair to well sorted, predominantly unconsolidated, occasionally clay & chlorite cement, calcareous cement, tight, clay filled, no show.
- 5000 - 5022 ft      SHALE brown, tan, micaceous, limy, dolomitic, earthy, soft to firm, marly.
- 5022 - 5042 ft      SANDSTONE white, clear, quartzose, very fine to medium grained, sub angular, finely to well sorted, friable, clay matrix, calcareous cement, predominantly unconsolidated, no show.
- 5042 - 5059 ft      SHALE brown, tan, micaceous, limy, dolomitic, earthy, soft to firm, marly.
- 5059 - 5078 ft      LIMESTONE light grey, very fine to microcrystalline, dense, silty, slightly argillaceous, dolomite.
- 5078 - 5098 ft      SHALE brown, tan, micaceous, limy, dolomitic, earthy, soft to firm, marly.
- 5098 - 5106 ft      LIMESTONE light grey, very fine to microcrystalline, dense, silty, slightly argillaceous, dolomitic lithographic, white, chalky in part, mudstone to wackestone, occasionally grainstone.

- 5106 - 5113 ft      SHALE brown, tan, micaceous, limy, dolomitic, earthy, soft to firm, marly.
- 5113 - 5155 ft      LIMESTONE light grey, very fine to microcrystalline, dense, silty, slightly argillaceous, dolomitic, lithographic, white, chalky inpart, mudstone to wackestone, occasionally grainstone.
- 5155 - 5182 ft      SHALE medium to dark grey, limy, dolomitic, earthy, soft to firm, marly, blocky, grades to lithographic limestone.
- 5182 - 5249 ft      LIMESTONE light grey brown, very fine to microcrystalline, dense, silty, slightly argillaceous, dolomite, lithographic, white, chalky inpart, mudstone to wackestone, occasionally grainstone, firm to hard, tight, no show.
- 5249 - 5293 ft      SHALE medium to dark grey, limy, dolomitic, earthy, soft to firm, marly, grades to lithographic limestone.
- 5293 - 5311 ft      LIMESTONE medium to dark grey, very fine to microcrystalline, dense, silty, argillaceous, dolomitic, lithographic, white, chalky & anhydritic inpart, mudstone to wackestone, grades to limy shale.
- 5311 - 5319 ft      SHALE medium to dark grey, limy, dolomitic, earthy, soft to firm, marly, grades to lithographic argillaceous limestone.
- La Sal 5319.0
- 5319 - 5341 ft      LIMESTONE medium to dark grey, very fine to microcrystalline, dense, silty, argillaceous, dolomitic, lithographic, white, light grey, chalky & anhydritic inpart, mudstone to wackestone.
- 5341 - 5348 ft      SHALE medium to dark grey, limy, dolomitic, earthy, soft to firm, marly, grades to lithographic argillaceous limestone.
- 5348 - 5373 ft      LIMESTONE medium to dark grey, very fine to microcrystalline, dense, silty, argillaceous, dolomitic, lithographic, white, light grey, chalky & anhydritic inpart, mudstone to wackestone.
- 5373 - 5390 ft      SHALE medium to dark grey, limy, dolomitic, earthy, soft to firm, marly, grades to lithographic argillaceous limestone.

- 5390 - 5400 ft      LIMESTONE medium to dark grey, very fine to microcrystalline, dense, silty, argillaceous, dolomitic, lithographic, white, light grey, chalky & anhydritic in part, mudstone to wackestone.
- 5400 - 5416 ft      SHALE medium to dark grey, limy, dolomite, earthy, soft to firm, marly, grades to lithographic argillaceous limestone.
- 5416 - 5426 ft      LIMESTONE medium to dark grey, very fine to microcrystalline, dense, silty, argillaceous, dolomitic, lithographic, white, light grey, chalky & anhydritic in part, mudstone to wackestone.
- 5426 - 5442 ft      SHALE medium to dark grey, limy, dolomitic, earthy, soft to firm, marly, grades to lithographic argillaceous limestone.
- 5442 - 5467 ft      LIMESTONE medium to dark grey, very fine to microcrystalline, dense, silty, argillaceous, dolomitic, lithographic, white, light grey, chalky & anhydritic in part, mudstone to wackestone.
- 5467 - 5472 ft      SHALE medium to dark grey, limy, dolomite, earthy, soft to firm, marly, grades to lithographic argillaceous limestone.
- 5472 - 5495 ft      LIMESTONE medium to dark grey, very fine to microcrystalline, dense, silty, argillaceous, dolomitic, lithographic, white, light grey, chalky & anhydritic in part, mudstone to wackestone.
- 5495 - 5500 ft      SHALE medium to dark grey, limy, dolomitic, earthy, soft to firm, marly, grades to lithographic argillaceous limestone.
- 5500 - 5550 ft      LIMESTONE medium to dark grey, very fine to microcrystalline, dense, silty, argillaceous, dolomitic, lithographic, white, light grey, chalky & anhydritic in part, mudstone to wackestone.
- 5550 - 5590 ft      LIMESTONE medium to dark grey, very fine to microcrystalline, dense, silty, argillaceous, dolomitic, lithographic, white, light grey, chalky & anhydritic in part, mudstone to wackestone.
- 5590 - 5595 ft      ANHYDRITE white, crystalline, chalky, crystalline.
- 5595 - 5605 ft      SHALE medium to dark grey, limy, dolomitic, earthy, soft to firm, marly, grades to lithographic argillaceous limestone.



5605 - 5631 ft      LIMESTONE medium to dark grey, very fine to microcrystalline, dense, silty, argillaceous, dolomite, lithographic, white, light grey, chalky & anhydritic in part, mudstone to wackestone.

5631 - 5650 ft      SHALE medium to dark grey, limy, dolomite, earthy, soft to firm, marly, grades to lithographic argillaceous limestone.

Upper Ismay 5650.0

5650 - 5654 ft      ANHYDRITE white, chalky, sucrosic, crystalline.

5654 - 5660 ft      SHALE medium to dark grey, limy, dolomite, earthy, soft to firm, marly, grades to lithographic argillaceous limestone.

5660 - 5662 ft      ANHYDRITE white, chalky, sucrosic, crystalline.

5662 - 5664 ft      DOLOMITE light brown, very fine to microcrystalline, dense, hard.

5664 - 5690 ft      ANHYDRITE white, crystalline, chalky, sucrosic texture.

Upper Ismay Mound 5690.0

5690 - 5694 ft      LIMESTONE light to medium grey, very fine to microcrystalline, argillaceous, lithographic, dolomite.

5694 - 5700 ft      LIMESTONE light brown, tan, very fine to fine crystalline, translucent, light brown oil staining, yellow oil fluorescence, yellow to white cut fluorescence, yellow residual ring cut fluorescence, 6 to 8% intercrystalline & pin point porosity.

5700 - 5710 ft      LIMESTONE light to medium grey, agal mound, laminated, anhydrite & calcite infill, compaction deformation, coaly & carbonaceous laminations at basal contact, very fine to microcrystalline, hard, dense, dolomitic, argillaceous, massive, strong hydrocarbon odor, 4 to 6% intercrystalline porosity, occasionally pin point & vuggy porosity, slow milky cut fluorescence, yellow to white residual cut fluorescence.

- 5710 - 5739 ft      LIMESTONE light to medium grey, agal mound, laminated, anhydrite & calcite infill, compaction deformation, no horizontal or vertical fractures, crinoidal, mottled, very fine to microcrystalline, hard, dense, dolomitic, argillaceous, massive, strong hydrocarbon odor, 4 to 6% intercrystalline porosity, occasionally pin point & vuggy porosity, occasional micro pore throats, slow milky cut fluorescence, yellow to white residual cut fluorescence.
- 5739 - 5742 ft      LIMESTONE light to medium grey brown, slightly inclined depositional lamination, wavy laminations, as above.
- 5742 - 5748 ft      LIMESTONE light to medium grey, occasionally dark grey, abundant crinoidal fossile debris, brecciated, argillaceous, as above, hard, tight, no show.
- 5748 - 5751 ft      DOLOMITE light to medium grey to brown, anhydrite mottled, wavy carbonaceous depositional laminations, bleeding gas, hydrocarbon odor, slow milky cut fluorescence, white to yellow cut fluorescence.
- 5751 - 5760 ft      LIMESTONE light to medium grey, agal mound, laminated, anhydrite & calcite infill, compaction deformation, very fine to microcrystalline, hard, dense, dolomitic, argillaceous, massive, strong hydrocarbon odor, 4 to 6% intercrystalline porosity, occasionally pin point & vuggy porosity, slow milky cut fluorescence, yellow to white residual cut fluorescence.
- 5760 - 5762 ft      DOLOMITE light to medium grey to brown, anhydrite mottled, wavy carbonaceous depositional laminations, bleeding gas, hydrocarbon odor, slow milky cut fluorescence, white to yellow cut fluorescence.
- 5762 - 5773 ft      LIMESTONE light to medium grey, agal mound, lamination, anhydrite & calcite infill, convolute compaction deformation laminations, no horizontal or vertical fractures, crinoidal, brachiopods, mottled, very fine to microcrystalline, hard, dense, dolomitic, argillaceous, massive, strong hydrocarbon odor, 4 to 6% intercrystalline porosity, occasionally pin point & vuggy porosity, occasional micro pore throats, slow milky cut fluorescence, yellow to white residual cut fluorescence.

- 5773 - 5790 ft      LIMESTONE light grey to brown, stylolitic, mottled, anhydrite & calcite infill, compaction deformation, wavy carbonaceous shale laminations, very fine to microcrystalline, hard, dense, dolomitic, massive, occasional vuggy & pin point porosity, weak shows.
- 5790 - 5816 ft      SHALE dark grey, black, splintery, poker chiped, massive, micromicaceous, abundant brachiopods, blocky, petroliferous, limy, dolomitic, milky cut fluorescence, residual ring cut.
- 5816 - 5852 ft      DOLOMITE light to medium grey brown, anhydrite mottled, wavy carbonaceous depositional lamination, bleeding gas, hydrocarbon odor, slow milky cut fluorescence, white to yellow cut fluorescence.

Lower Ismay Anhy 5852.0

- 5852 - 5872 ft      ANHYDRITE white, chalky, crystalline, sucrosic texture.

Lower Ismay Carbonate 5872.0

- 5872 - 5880 ft      DOLOMITE light to medium grey to brown, anhydrite mottled, wavy carbonaceous depositional laminations, bleeding gas, hydrocarbon odor, slow milky cut fluorescence, white to yellow cut fluorescence.

Gothic 5880.0

- 5880 - 5896 ft      SHALE dark grey, black, splintery, poker chiped, massive, micromicaceous, abundant Brachiopods, blocky, petroliferous, limy, dolomitic, milky cut fluorescence, residual ring cut.

Upper Deserl Creek 5896.0

- 5896 - 5901 ft      DOLOMITE light to medium grey to brown, anhydrite mottled, wavy carbonaceous depositional laminations, bleeding gas, hydrocarbon odor, slow milky cut fluorescence, white to yellow cut fluorescence.
- 5901 - 5941 ft      ANHYDRITE white, chalky, crystalline, sucrosic texture.

- 5941 - 5952 ft      DOLOMITE light to medium grey to brown, anhydrite mottled, wavy carbonaceous depositional laminations, **bleeding gas**, hydrocarbon odor, slow milky cut fluorescence, white to yellow cut fluorescence.
- 5952 - 5970 ft      SHALE dark grey, black, splintery, poker chiped, massive, micromicaceous, abundant brachiopods, blocky, **petroliferous**, limy, dolomitic, milky cut fluorescence, residual ring cut.
- 5970 - 5973 ft      ANHYDRITE white, chalky, crystalline, sucrosic texture.

Lower Desert Creek Mound 5973.0

- 5973 - 6000 ft      DOLOMITE light to medium grey to brown, anhydrite mottled, wavy carbonaceous depositional laminations, **bleeding gas**, hydrocarbon odor, slow milky cut fluorescence, white to yellow cut fluorescence.
- 6000 - 6004 ft      DOLOMITE medium to dark grey brown, microcrystalline, dense, hard, argillaceous, limy, mudstone to wackestone, earthy, brachiopod & crinoid debris, finely laminated, wavy in part, calcite infill, anhydrite replacement, tight, weak shows.

Chimney Rock 6004.0

- 6004 - 6024 ft      SHALE black, dark grey, poker chiped, dense, hard, limy, dolomitic, petroliferous, silty, sooty texture, **white milky cut fluorescence**, white to yellow cut fluorescence.

Akah 6024.0

- 6024 - 6047 ft      DOLOMITE light to medium grey brown, limy, argillaceous, anhydrite laminations, shale laminations, very fine to microcrystalline, earthy, lithographic.

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801

# MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS

SIBYL SWOPE  
PETRAL EXPLORATION LLC  
P O BOX 5083  
DENVER, CO 80217-5083

UTAH ACCOUNT NUMBER: N7700

REPORT PERIOD (MONTH/YEAR) : 10 / 1999

AMENDED REPORT ☐ (Highlight Changes)[illegible]**TOTALS**

**COMMENTS :**

**I hereby certify that this report is true and complete to the best of my knowledge.**

Date: \_\_\_\_\_

**Name and Signature:** \_\_\_\_\_

Telephone Number:

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.  
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

5. Lease Designation and Serial Number:

UTU-65915

6. If Indian, Altiquote or Tribe Name:

7. Unit Agreement Name:

Knockdhu Unit (75040X)

8. Well Name and Number:

#1 Knockdhu

9. API Well Number:

043-037-31773

10. Field and Pool, or Wildcat:

Unnamed

1. Type of Well: OIL ☒ GAS ☐ OTHER:

2. Name of Operator:

ROBERT L. BAYLESS, PRODUCER LLC

3. Address and Telephone Number:

PO BOX 168, FARMINGTON, NM 87499 (505) 326-2659

4. Location of Well

Footages: 1135' FNL &amp; 2530 FWL

DQ, Sec., T., R., M.: T37S-R25E Sec 33

County: San Juan

State: Utah

11.

### CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

#### NOTICE OF INTENT (Submit in Duplicate)

- |  |   |
|--|---|
| <input type="checkbox"/> Abandon                   | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Repair Casing             | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans           | <input type="checkbox"/> Recomplete           |
| <input type="checkbox"/> Convert to Injection      | <input type="checkbox"/> Perforate            |
| <input type="checkbox"/> Fracture Treat or Acidize | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Multiple Completion       | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____               |   |

Approximate date work will start \_\_\_\_\_

#### SUBSEQUENT REPORT (Submit Original Form Only)

- |   |   |
|---|---|
| <input type="checkbox"/> Abandon                                    | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Repair Casing                              | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans                            | <input type="checkbox"/> Perforate            |
| <input type="checkbox"/> Convert to Injection                       | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Fracture Treat or Acidize                  | <input type="checkbox"/> Water Shut-Off       |
| <input checked="" type="checkbox"/> Other <u>Change of Operator</u> |   |

Date of work completion \_\_\_\_\_

Report results of Multiple Completions and Recompletions to different intervals on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

• Must be accompanied by a cement verification report.

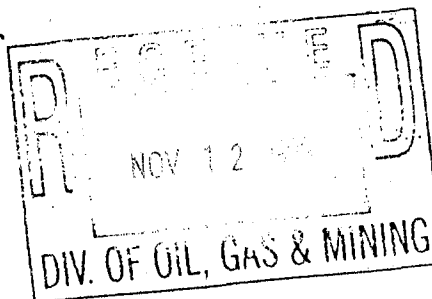
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Please be advised that Petral will transfer operations of this well effective November 1, 1999.

From:

Dianne Shroyer  
Petral Exploration, LLC, Captiva Resources, Inc., Manager  
P.O. Box 5093  
Denver, CO 80217-5083

New Operator:



13.

Name &amp; Signature:

Tom McCarthy

Title:

EngineerDate: 11/3/99

(This space for State use only)

150/109



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, UT 84145-0155

IN REPLY REFER TO  
UT-931

December 9, 1999

Robert L. Bayless, Producer LLC  
P.O. Box 168  
Farmington, New Mexico 87499

Re: Knockdhu Unit  
San Juan County, Utah

Gentlemen:

On December 6, 1999, we received an indenture dated November 1, 1999, whereby Petral Exploration LLC resigned as Unit Operator and Robert L. Bayless, Producer LLC was designated as Successor Unit Operator for the Knockdhu Unit, San Juan County, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective December 9, 1999. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under the Knockdhu Unit Agreement.

Your statewide (NM) oil and gas bond No. 0883 will be used to cover all operations within the Knockdhu Unit.

It is requested that you notify all interested parties of the change in unit operator. Copies of the approved instruments are being distributed to the appropriate federal offices, with one copy returned herewith.

Sincerely,

/s/ Robert A. Henricks

Robert A. Henricks  
Chief, Branch of Fluid Minerals

Enclosure

bcc: Field Manager - Moab (w/enclosure)  
Division of Oil, Gas & Mining  
Minerals Adjudication Group U-932  
File - Knockdhu Unit (w/enclosure)  
MMS - Data Management Division  
Agr. Sec. Chron  
Fluid Chron

UT931:TAThompson:tt:12/9/99

RECEIVED

DEC 13 1999

DIVISION OF OIL, GAS & MINING

Page No. 1  
12/09/99

Well Status Report  
Utah State Office  
Bureau of Land Management

Lease	Api Number	Well Name	QTR	Section	Township	Range	Well Status	Operator
** Inspection Item: UTU75040A								
UTU65915	4303731773	1	NWNE	33	T37S	R25E	POW	PETRAL EXPLORATION LLC
** Inspection Item: UTU75040X								
UTU65915	4303731789	KNOCKDHU 6	NESE	33	T37S	R25E	ABD	PETRAL EXPLORATION LLC



## OPERATOR CHANGE WORKSHEET

Attach all documentation received by the division regarding this change.

Initial each listed item when completed. Write N/A if item is not applicable.

Routing:

1-KDR <input checked="" type="checkbox"/>	6-KAS <input checked="" type="checkbox"/>
2-GL <input checked="" type="checkbox"/>	7-SJ <input checked="" type="checkbox"/>
3-JRB <input checked="" type="checkbox"/>	8-FILE <input checked="" type="checkbox"/>
4-CDW <input checked="" type="checkbox"/>	
5-KDR <input checked="" type="checkbox"/>	

☒ Change of Operator (well sold)☐ Designation of Agent☐ Designation of Operator☐ Operator Name Change OnlyThe operator of the well(s) listed below has changed, effective: 11-1-99

TO: (new operator)	<u>ROBERT L. BAYLESS, PROD LLC</u>	FROM: (old operator)	<u>PETRAL EXPLORATION LLC</u>
(address)	<u>P.O. BOX 168</u>	(address)	<u>P.O. BOX 5083</u>
	<u>FARMINGTON, NM 87499</u>		<u>DENVER, CO 80217-5083</u>
Phone:	<u>(505) 326-2659</u>	Phone:	<u>(303) 832-3131</u>
Account no.	<u>N7950</u>	Account no.	<u>N7700</u>

WELL(S) attach additional page if needed:

\*KNOCKDHU UNIT

Name:	<u>KNOCKDHU UNIT 2 (PGW)</u>	API:	<u>43-037-31779</u>	Entity:	<u>12111</u>	S	<u>33</u>	T	<u>37S</u>	R	<u>25E</u>	Lease:	<u>UTU-65915</u>
Name:	<u>SHANE FED. 1 (SGW)</u>	API:	<u>43-037-31406</u>	Entity:	<u>10999</u>	S	<u>7</u>	T	<u>37S</u>	R	<u>24E</u>	Lease:	<u>UTU-39243</u>
Name:	<u>DALMORE-FED. 1-A (PGW)</u>	API:	<u>43-037-31786</u>	Entity:	<u>12098</u>	S	<u>26</u>	T	<u>37S</u>	R	<u>23E</u>	Lease:	<u>UTU-041085</u>
Name:	<u>KNOCKDHU UNIT 3 (PGW)</u>	API:	<u>43-037-31785</u>	Entity:	<u>11890</u>	S	<u>33</u>	T	<u>37S</u>	R	<u>25E</u>	Lease:	<u>UTU-75521</u>
Name:	<del><u>KNOCKDHU UNIT 1 (PGW)</u></del>	API:	<del><u>43-037-31785</u></del>	Entity:	<del><u>11890</u></del>	S	<del><u>33</u></del>	T	<del><u>37S</u></del>	R	<del><u>25E</u></del>	Lease:	<del><u>UTU-75521</u></del>
Name:	<u>KNOCKDHU UNIT 1 (PGW)</u>	API:	<u>43-037-31773</u>	Entity:	<u>11890</u>	S	<u>33</u>	T	<u>37S</u>	R	<u>25E</u>	Lease:	<u>UTU-65915</u>
Name:		API:		Entity:		S		T		R		Lease:	

## OPERATOR CHANGE DOCUMENTATION

- 1 1. (r649-8-10) Sundry or other legal documentation has been received from the **FORMER** operator (attach to this form). *(Rec'd 11.12.99)*
- 2 2. (r649-8-10) Sundry or other legal documentation has been received from the **NEW** operator (Attach to this form). *(Rec'd 11.12.99)*
- N/A 3. The **Department of Commerce** has been contacted if the new operator above is not currently operating any wells in Utah. Is the company **registered with the state?** (yes/no) \_\_\_\_ If yes, show company file number: \_\_\_\_
- 4 4. **FOR INDIAN AND FEDERAL WELLS ONLY.** The BLM has been contacted regarding this change. Make note of BLM status in comments section of this form. BLM approval of **Federal** and **Indian** well operator changes should ordinarily take place prior to the division's approval, and before the completion of **steps 5 through 9** below. *(Rec'd 11.18.99) (Rec'd 12.13.99)*
- 5 5. Changes have been entered in the **Oil and Gas Information System** (3270) for each well listed above. *(11.24.99) → 3 wells*
- 6 6. **Cardex** file has been updated for each well listed above. *(1.20.2000 → 2 wells Knockdhu unit)*
- 7 7. Well **file labels** have been updated for each well listed above.
- 8 8. Changes have been included on the monthly "Operator, Address, and Account Changes" **memo** for distribution to Trust Lands, Sovereign Lands, UGS, Tax Commission, etc. *(11.24.99 \* 3 wells) (1.21.2000 2 wells Knockdhu unit)*
- 9 9. A folder has been set up for the **Operator Change file**, and a copy of this page has been placed there for reference during routing and processing of the original documents.

## ENTITY REVIEW

- ✓ 1. (r649-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) no If entity assignments were changed, attach copies of Form 6, Entity Action Form.
- ✓ 2. Trust Lands, Sovereign Lands, Tax Commission, etc., have been notified through normal procedures of entity changes.

## BOND VERIFICATION - (FEE WELLS ONLY)

- N/A 1. (r649-3-1) The NEW operator of any fee lease well listed above has furnished a proper bond.
- + 2. A copy of this form has been placed in the new and former operator's bond files.
- + 3. The FORMER operator has requested a release of liability from their bond (yes/no) no, as of today's date 4/13/2000. If yes, division response was made to this request by letter dated 4/13/2000.

## LEASE INTEREST OWNER NOTIFICATION OF RESPONSIBILITY

- N/A 1. Copies of documents have been sent on 4/13/2000 to Trust Lands for changes involving State leases, in order to remind that agency of their responsibility to review for proper bonding.
- + 2. (r649-2-10) The former operator of any fee lease wells listed above has been contacted and informed by letter dated 4/13/2000 19 2000, of their responsibility to notify all interest owners of this change.

## FILMING

- ✓ 1. All attachments to this form have been microfilmed. Today's date: APR 13 2000.

## FILING

- + 1. Copies of all attachments to this form have been filed in each well file.
- + 2. The original of this form, and the original attachments are now being filed in the Operator Change file.

## COMMENTS

991124 called Robert L. Bayless to see which acct# wells are to be put under.  
Per Robert L. Bayless, Producer LLC, they are to be under N7950.  
991124 called Teresa Thompson in SL BLM office to see if approval for Knockdhu #1.  
She said as of today no paperwork filed. Called Robert L. Bayless (Tom McCarthy)  
and let them know they needed to file w/ SL BLM office because well is in  
an unit. Gave him Teresa's name & number for info.